

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

September

2014

Prepared by
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GENERAL BULLETIN INFORMATION

The National Centre for Geophysical Research is a governmental agency established 1975 in Lebanon by the National Council for Scientific Research (CNRS). The mission of the Centre, among other assignments, is the monitoring of seismic activity within the national territory. Currently, the national seismic network is under deployment; it has been officially registered as GRAL, an acronym for Geophysical Research Arrays of Lebanon. Station coordinates and status are given below.

Since 1993, the Centre has been participating in a regional initiative by the UNESCO and the USGS known as RELEMR, i.e. Reducing Earthquake Losses in the Eastern Mediterranean Region.

Within this framework, the Centre routinely contributes to the database set up for this purpose and maintained by the Euro-Mediterranean Seismological Centre (EMSC). For coherence, the Centre has adopted the recommended seismic analysis system SEISAN developed by Jens Havskov and Lars Ottemoller from the University of Bergen, Norway.

The localization program currently used for locating earthquakes is Hypocenter (Lienert et al., 1986). Plane parallel layers are assumed for local and regional events, while the IASPEI travel time tables are used for distant events.

The velocity model used for all local and regional events is the one currently adopted by the RELEMR initiative.

P-wave velocity (km/sec)	depth to top of layer (km)
6.2	0.0
6.8	14.0
8.05	34.0
8.25	50.0
8.5	80.0

Magnitudes are calculated from the coda duration. The coda wave magnitude is estimated via the formula:

$$M_c = 0.08 + 1.63 * \log_{10}(T) + 0.0009 * D.$$

where T is the coda duration (sec) and D is the epicentral distance (km). The coefficients above were adopted at the outset of our Centre in 1980 and thus are still in use for the sake of continuity.

All available coda values are used for magnitude calculations. No station corrections are used for either travel times or magnitudes calculations. The V_p/V_s velocity ratio used in both layered models above is 1.74.

As a general policy, neither depths, nor epicenters, are fixed unless stated otherwise since this might restrict later use of the data. Consequently, some event locations might be unrealistic such as zero depth earthquakes or teleseismic locations off by 1000 km. However, the locations are based on the available data and reflect the localization procedure and the models used.

STATIONS USED

The stations listed below are operated by the National Centre for Geophysical Research. They constitute the basic setup of the National Seismic Network of Lebanon.

However, readings from other cooperating agencies are also used in locating the events and thus more stations may appear in the event lists than in the station list; it is worth mentioning the systematic use of arrival times from the Cypriot seismic network CSS in order to constrain events corresponding to an active zone off the Lebanese shorelines.

STATION	LATITUDE	LONGITUDE	HEIGHT (m)	NAME	COMMENTS
BHL	3354.25N	3539.25E	1000	BHANNES	Opened May 1980
HWQ	3416.68N	3556.78E	1161	HAWQA	Opened Jan 2001
MATL	3329.32N	3519.78E	5	MATARIH	Nov2000-Sep2012
FKH	3414.69N	3624.61E	1152	FAKEHEH	Opened Dec 2004
RCY	3329.79N	3550.14E	1370	RACHAYA	Opened Jun 2006
BEYL	3352.30N	3529.59E	49	BEIRUT	Opened Jul 2006
NAQL	3307.02N	3508.46E	83	NAQOURA	Jul2008-Jan2012
DQRL	3342.34N	3534.21E	963	DEIR QAMAR	Opened Mar 2010
QRWL	3332.86N	3540.93E	875	QARAOUN	Opened Oct 2011
SHBL	3320.90N	3544.63E	1422	CHEBAA	Opened Oct 2011

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.

September 1 2014 Hour: 13:39 16.7 Lat: 33.46N Lon: 35.59E Depth: 9 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	13	40	EP		1339	19.44	0.01	32						1.0
QRWL	SN	13	40	ES		1339	21.45	-0.01							1.0
SHBL	BZ	19	130	EP		1339	20.20	0.00							1.0
RCY	SZ	23	79	EP		1339	20.83	-0.01							1.0
RCY	SN	23	79	ES		1339	23.93	0.01							1.0

September 1 2014 Hour: 15:1 10.7 Lat: 34.06N Lon: 36.07E Depth: 58 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	27	336	EP		15 1	19.93	0.06	43						1.0
HWQ	SN	27	336	ES		15 1	26.63	-0.02							1.0
BHL	BZ	42	246	EP		15 1	20.78	-0.08							1.0
DQRL	SZ	60	230	EP		15 1	22.53	0.02							1.0
DQRL	SN	60	230	ES		15 1	31.28	0.03							1.0
RCY	SZ	66	199	EP		15 1	23.09	-0.01							1.0

September 1 2014 Hour: 15:28 16.2 Lat: 33.78N Lon: 35.79E 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	18	318	EP		1528	19.34	-0.07	45						1.0
BHL	BE	18	318	ES		1528	21.78	0.02							1.0
DQRL	SZ	22	247	EP		1528	19.96	-0.00							1.0
DQRL	SN	22	247	ES		1528	22.74	0.02							1.0
RCY	SZ	32	172	EP		1528	21.59	0.01							1.0
RCY	SN	32	172	ES		1528	25.52	-0.01							1.0
HWQ	SZ	57	15	EP		1528	25.52	0.03							1.0

September 1 2014 Hour: 20:50 11.3 Lat: 34.10N Lon: 36.21E Depth: 23 Agency: REL Local
Magnitudes: 4.3MC REL Rms: 0.3 secs

HERMEL BAALBEK REGION

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	32	309	EP		2050	17.61	0.11	353						1.0
HWQ	SN	32	309	ES		2050	21.66	-0.45							1.0
BHL	BZ	56	248	EP		2050	20.75	0.05							1.0
BHL	BN	56	248	ES		2050	27.46	-0.22							1.0
BEYL	SZ	71	250	EP		2050	23.27	0.48							1.0
BEYL	SN	71	250	ES		2050	31.21	-0.11							1.0
DQRL	SZ	74	234	EP		2050	23.50	0.28							1.0
DQRL	SN	74	234	ES		2050	32.10	0.03							1.0
RCY	SZ	75	208	EP		2050	23.36	-0.11							1.0
RCY	SN	75	208	ES		2050	32.58	0.08							1.0
QRWL	SZ	78	219	EP		2050	23.83	-0.05							1.0
SHBL	BZ	94	208	EP		2050	26.13	-0.03							1.0
SHBL	BN	94	208	ES		2050	37.18	0.00							1.0

September 1 2014 Hour: 22:16 44.1 Lat: 34.10N Lon: 36.25E Depth: 29 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	34	305	EP		2216	51.18	0.01	46						1.0
HWQ	SN	34	305	ES		2216	56.41	0.01							1.0
BHL	BZ	59	248	EP		2216	54.28	-0.05							1.0
BHL	BE	59	248	ES		2217	1.89	-0.01							1.0
DQRL	SZ	77	235	EP		2216	56.79	0.05							1.0
RCY	SZ	77	210	EP		2216	56.84	-0.04							1.0
RCY	SN	77	210	ES		2217	6.34	0.02							1.0

QRWL	SZ	81	221	EP		2216	57.35	0.02										1.0
SHBL	BZ	96	209	EP		2216	59.51	0.00										1.0

September 2 2014 Hour: 9:16 20.9 Lat: 33.47N Lon: 35.68E Depth: 11 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	2	EP		916	23.33	-0.03	35						1.0
SHBL	BZ	15	156	EP		916	24.08	0.01							1.0
RCY	SZ	15	78	EP		916	24.07	-0.01							1.0
RCY	SE	15	78	ES		916	26.45	0.01							1.0
DQRL	SZ	28	339	EP		916	25.87	0.00							1.0
DQRL	SN	28	339	ES		916	29.56	0.01							1.0

September 2 2014 Hour: 12:30 56.2 Lat: 33.56N Lon: 35.71E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	3	255	EP		1230	56.72	-0.04	32						1.0
RCY	SZ	13	120	EP		1230	58.36	0.01							1.0
RCY	SN	13	120	ES		1230	59.89	-0.02							1.0
DQRL	SZ	21	321	EP		1230	59.69	-0.01							1.0
DQRL	SN	21	321	ES		1231	2.27	0.02							1.0
SHBL	BZ	23	173	EP		1231	0.01	0.04							1.0

September 2 2014 Hour: 15: 7 35.8 Lat: 33.79N Lon: 35.78E Depth: 14 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	318	EP		15 7	39.47	-0.04	41						1.0
BHL	BN	17	318	ES		15 7	42.30	0.01							1.0
DQRL	SZ	21	244	EP		15 7	40.06	0.03							1.0
QRWL	SZ	28	198	EP		15 7	40.92	-0.03							1.0
RCY	SZ	33	171	EP		15 7	41.66	0.01							1.0
RCY	SN	33	171	ES		15 7	46.01	0.00							1.0
HWQ	SZ	56	16	EP		15 7	45.07	0.01							1.0

September 2 2014 Hour: 22:49 14.1 Lat: 33.63N Lon: 35.80E Depth: 0 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
QRWL	SZ	15	230	EP		2249	16.40	-0.02							1.0
RCY	SZ	15	168	EP		2249	16.52	-0.03							1.0
RCY	SN	15	168	ES		2249	18.38	-0.00							1.0
DQRL	SZ	23	291	EP		2249	17.82	0.02	35						1.0
DQRL	SN	23	291	ES		2249	20.55	-0.01							1.0
SHBL	BZ	32	190	EP		2249	19.27	0.05							1.0

September 2 2014 Hour: 23:14 39.2 Lat: 33.79N Lon: 35.80E 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	18	313	EP		2314	42.96	0.01							1.0
DQRL	SZ	23	245	EP		2314	43.64	0.01	46						1.0
DQRL	SN	23	245	ES		2314	46.90	-0.00							1.0
QRWL	SZ	29	201	EP		2314	44.48	-0.01							1.0
RCY	SZ	33	174	EP		2314	45.08	-0.02							1.0
RCY	SN	33	174	ES		2314	49.47	0.02							1.0
SHBL	BZ	50	186	EP		2314	47.56	0.01							1.0

September 3 2014 Hour: 3:15 29.7

Agency: REL Regional

EMSC OT=03:15:29.7 36.58N 35.87E 2Km M=3.5 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		316	16.09								
QRWL	SZ			EP		316	17.98								
RCY	SZ			EP		316	19.07								
SHBL	BZ			EP		316	21.30								

September 3 2014 Hour: 7:43 30.7

Agency: REL Distant

EMSC OT=07:43:30.7 14.99S 173.44W 2Km M=5.8 SAMOA ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		8 3	12.10								
BHL	BZ			EP		8 3	16.93								

September 3 2014 Hour: 13:37 36.3 Lat: 32.86N Lon: 35.43E Depth: 1 Agency: REL Local
Magnitudes: 2.8MC 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	61	29	EP		1337	46.21-0.04								1.0
SHBL	BE	61	29	ES		1337	53.54-0.05								1.0
RCY	SZ	80	28	EP		1337	49.28 0.04		41						1.0
RCY	SN	80	28	ES		1337	58.83 0.05								1.0
DQRL	SZ	94	8	EP		1337	51.57-0.00								1.0
HWQ	SZ	164	17	EP		1338	2.33-0.00								1.0

September 4 2014 Hour: 5:33 45.7

Agency: REL Distant

EMSC OT=05:33:45.7 21.40S 173.28W 4Km M=6.0 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		553	34.93								
BHL	BZ			EP		553	34.37								

September 4 2014 Hour: 12:58 5.2 Lat: 33.46N Lon: 35.58E Depth: 19 Agency: REL Local
Magnitudes: 2.5MC 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	14	43	EP		1258	9.02-0.10								1.0
QRWL	SN	14	43	ES		1258	12.08 0.06								1.0
SHBL	BZ	19	128	EP		1258	9.71-0.00								1.0
RCY	SZ	24	79	EP		1258	10.34 0.10		29						1.0
RCY	SE	24	79	ES		1258	13.93-0.06								1.0

September 4 2014 Hour: 14:22 35.2 Lat: 33.78N Lon: 35.76E Depth: 7 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	323	EP		1422	38.22-0.01								1.0
DQRL	SZ	20	245	EP		1422	38.69 0.01		52						1.0
DQRL	SN	20	245	ES		1422	41.27-0.00								1.0
RCY	SZ	32	168	EP		1422	40.58-0.02								1.0
RCY	SN	32	168	ES		1422	44.63 0.01								1.0
HWQ	SZ	57	17	EP		1422	44.54 0.01								1.0

September 4 2014 Hour: 15:40 21.1 Lat: 33.78N Lon: 35.79E Depth: 6 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	316	EP		1540	24.10-0.14		35						1.0
DQRL	SZ	22	247	EP		1540	24.79-0.05								1.0
DQRL	SN	22	247	ES		1540	27.77 0.13								1.0
QRWL	SZ	28	201	EP		1540	25.64-0.10								1.0
RCY	SZ	32	173	EP		1540	26.46 0.08								1.0
RCY	SN	32	173	ES		1540	30.30-0.03								1.0
HWQ	SZ	57	15	EP		1540	30.36 0.11								1.0

September 4 2014 Hour: 21:0 4.0 Agency: REL Regional

EMSC OT=21:00:04.0 36.24N 30.89E 72Km M=5.3 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		21	1	8.12							
DQRL	SZ			EP		21	1	8.73							
HWQ	SZ			EP		21	1	11.03							
SHBL	BZ			EP		21	1	14.50							
RCY	SZ			EP		21	1	14.00							

September 5 2014 Hour: 1:19 38.0 Agency: REL Distant

EMSC OT=01:19:38.0 64.71N 17.34W 2Km M=5.1 ICELAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		127		45.63							
SHBL	BZ			EP		127		50.56							

September 5 2014 Hour: 16:46 41.7 Lat: 33.70N Lon: 36.95E Depth: 36 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	105	258	EP		1646		57.69-0.27							1.0
HWQ	SZ	112	305	EP		1646		58.92 0.12	74						1.0
SHBL	BZ	118	251	EP		1646		59.75 0.20							1.0
QRWL	SZ	118	262	EP		1646		59.59 0.07							1.0
QRWL	SN	118	262	ES		1647		12.81 0.10							1.0
BHL	BZ	122	281	EP		1646		59.81-0.13							1.0
DQRL	SZ	128	271	EP		1647		0.61-0.04							1.0
DQRL	SN	128	271	ES		1647		14.62-0.06							1.0

September 6 2014 Hour: 6:53 13.1 Agency: REL Distant

EMSC OT=06:53:13.1 26.60S 114.60W 10Km M=6.1 EASTER ISLAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		713		3.77							
SHBL	BZ			EP		713		4.27							

September 6 2014 Hour: 9:16 1.2 Lat: 33.48N Lon: 35.67E 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	8	10	EP		916		2.71-0.03	28						1.0
RCY	SZ	16	82	EP		916		3.85-0.04							1.0
RCY	SN	16	82	ES		916		5.95 0.03							1.0
SHBL	BZ	16	154	EP		916		3.92-0.02							1.0
SHBL	BN	16	154	ES		916		6.01 0.02							1.0
DQRL	SZ	27	340	EP		916		5.64 0.04							1.0

September 7 2014 Hour: 3:0 9.7 Lat: 33.56N Lon: 35.41E Depth: 16 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	22	44	EP		3	0	14.09-0.06	45						1.0
DQRL	SN	22	44	ES		3	0	17.45 0.03							1.0
QRWL	SZ	26	94	EP		3	0	14.64 0.01							1.0
SHBL	BZ	40	127	EP		3	0	16.64 0.05							1.0
SHBL	BN	40	127	ES		3	0	21.64-0.03							1.0
BHL	BZ	44	31	EP		3	0	17.24-0.00							1.0

September 7 2014 Hour: 3:33 36.2 Lat: 33.45N Lon: 35.29E Depth: 20 Agency: REL Local
Magnitudes: 2.8MC 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	38	73	EP		333		43.17 0.12							1.0
QRWL	SN	38	73	ES		333		48.04-0.07							1.0
DQRL	SZ	39	43	EP		333		43.00-0.12	44						1.0

DQRL	SN	39	43	ES		333	48.30	0.07											1.0
BHL	BZ	61	34	EP		333	46.24	-0.01											1.0
HWQ	SZ	110	33	EP		333	53.57	0.09											0.2

September 7 2014 Hour: 7:7 59.4

Agency: REL Distant

EMSC OT=07:07:59.4 64.56N 17.50W 2Km M=5.5 ICELAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		716	14.02								
BHL	BZ			EP		716	9.20								

September 7 2014 Hour: 15:31 45.4 Lat: 33.50N Lon: 35.67E Depth: 0 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
QRWL	SZ	6	8	EP		1531	46.23	-0.06	21						1.0
QRWL	SN	6	8	ES		1531	46.96	-0.00							1.0
RCY	SZ	15	91	EP		1531	47.81	-0.00							1.0
RCY	SN	15	91	ES		1531	49.62	0.01							1.0
DQRL	SZ	25	337	EP		1531	49.40	-0.01							1.0
BHL	BZ	45	358	EP		1531	52.73	0.07							1.0

September 7 2014 Hour: 15:52 20.0 Lat: 33.79N Lon: 35.78E Depth: 14 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		1552	23.58	-0.02	46						1.0
DQRL	SZ	21	243	EP		1552	24.16	-0.03							1.0
DQRL	SN	21	243	ES		1552	27.35	0.03							1.0
QRWL	SZ	29	198	EP		1552	25.15	-0.01							1.0
RCY	SZ	33	171	EP		1552	25.86	-0.02							1.0
RCY	SN	33	171	ES		1552	30.27	0.01							1.0
HWQ	SZ	56	16	EP		1552	29.24	0.03							1.0

September 8 2014 Hour: 14:12 47.0 Lat: 33.79N Lon: 35.77E Depth: 9 Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	320	EP		1412	50.09	-0.09	36						1.0
DQRL	SZ	21	245	EP		1412	50.67	-0.04							1.0
DQRL	SN	21	245	ES		1412	53.55	0.08							1.0
RCY	SZ	33	170	EP		1412	52.48	-0.03							1.0
RCY	SE	33	170	ES		1412	56.60	0.01							1.0
HWQ	SZ	57	16	EP		1412	56.38	0.08							1.0

September 8 2014 Hour: 15:24 34.3 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	296	EP		1524	34.63	-0.06							1.0
RCY	SZ	13	111	EP		1524	36.29	-0.05	35						1.0
RCY	SN	13	111	ES		1524	37.89	0.01							1.0
SHBL	BZ	21	171	EP		1524	37.73	0.03							1.0
DQRL	SZ	23	326	EP		1524	38.00	0.10							1.0
DQRL	SN	23	326	ES		1524	40.56	-0.03							1.0

September 9 2014 Hour: 16:8 11.5 Lat: 33.82N Lon: 35.76E Depth: 22 Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	315	EP		16 8	15.82	0.05	36						1.0
BHL	BE	14	315	ES		16 8	18.90	-0.05							1.0
DQRL	SZ	21	235	EP		16 8	16.49	0.03							1.0
DQRL	SE	21	235	ES		16 8	20.15	-0.00							1.0
RCY	SZ	36	169	EP		16 8	18.11	-0.13							1.0

RCY	SN	36	169	ES		16	8	23.33	0.07										1.0
HWQ	SZ	54	19	EP		16	8	20.67	0.02										1.0

September 9 2014 Hour: 16:17 0.9 Lat: 33.79N Lon: 35.75E 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	15	324	EP		1617	4.25	-0.00	63						1.0
DQRL	SZ	19	241	EP		1617	4.76	0.01							1.0
DQRL	SN	19	241	ES		1617	7.67	0.08							1.0
BEYL	SZ	26	290	EP		1617	5.44	-0.09							1.0
QRWL	SZ	28	194	EP		1617	5.84	-0.07							1.0
RCY	SZ	34	167	EP		1617	6.78	-0.02							1.0
RCY	SN	34	167	ES		1617	11.15	-0.00							1.0
SHBL	BZ	49	181	EP		1617	9.21	0.04							1.0
HWQ	SZ	57	18	EP		1617	10.40	0.05							1.0

September 9 2014 Hour: 16:37 15.8 Lat: 33.74N Lon: 34.51E Depth: 20 Agency: REL Local
Magnitudes: 3.4MC REL Rms: 0.4 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	SZ	92	81	EP		1637	29.97	-0.29							0.2
DQRL	SZ	98	92	EP		1637	31.38	0.16							1.0
DQRL	SN	98	92	ES		1637	42.31	-0.35							1.0
BHL	BZ	107	80	EP		1637	32.48	-0.08	90						1.0
BHL	BE	107	80	ES		1637	44.74	-0.25							1.0
QRWL	SZ	110	101	EP		1637	33.38	0.33							1.0
QRWL	SN	110	101	ES		1637	45.96	0.13							1.0
SHBL	BZ	122	111	EP		1637	34.39	-0.42							1.0
RCY	SZ	126	102	EP		1637	35.43	0.13							1.0
RCY	SE	126	102	ES		1637	50.13	0.38							1.0
HWQ	SZ	145	65	EP		1637	38.10	0.13							1.0
HWQ	SN	145	65	ES		1637	54.39	-0.01							1.0

September 10 2014 Hour: 2:46 7.7 Agency: REL Distant

EMSC OT=02:46:07.7 0.10S 125.20E 30Km M=6.3 MOLUCCA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		259	1.92								
RCY	SZ			EP		259	3.01								
SHBL	BZ			EP		259	3.26								
BHL	BZ			EP		259	3.53								

September 10 2014 Hour: 5:16 55.7 Agency: REL Distant

EMSC OT=05:16:55.7 0.21S 125.21E 50Km M=5.7 MOLUCCA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		529	48.26								
BHL	BZ			EP		529	48.02								

September 10 2014 Hour: 16:31 59.0 Agency: REL Distant

EMSC OT=16:31:59.0 24.78S 179.34E 526Km M=5.3 FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1650	44.55								
QRWL	SZ			EP		1650	44.86								
SHBL	BZ			EP		1650	45.01								
DQRL	SZ			EP		1650	45.21								

September 11 2014 Hour: 0:7 40.4 Agency: REL Distant

EMSC OT=00:07:40.4 64.68N 17.26W 2Km M=5.0 ICELAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		015	50.41								
SHBL	BZ			EP		015	54.58								

September 11 2014 Hour: 12:57 48.3 Lat: 33.56N 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	254	EP		1257	48.81	-0.02							1.0
RCY	SZ	13	119	EP		1257	50.45	-0.03	38						1.0
RCY	SE	13	119	ES		1257	52.08	0.02							1.0
DQRL	SZ	21	322	EP		1257	51.76	-0.01							1.0
DQRL	SN	21	322	ES		1257	54.33	0.02							1.0
SHBL	BZ	23	173	EP		1257	52.09	0.02							1.0

September 11 2014 Hour: 15: 7 3.3 Lat: 33.79N Lon: 35.76E 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	16	321	EP		15 7	5.90	-0.01	40						1.0
BHL	BN	16	321	ES		15 7	7.86	0.01							1.0
DQRL	SZ	20	242	EP		15 7	6.61	0.02							1.0
BEYL	SZ	27	290	EP		15 7	7.54	-0.05							1.0
QRWL	SZ	28	196	EP		15 7	7.75	-0.08							1.0
RCY	SZ	33	169	EP		15 7	8.54	-0.14							1.0
RCY	SN	33	169	ES		15 7	12.75	0.07							1.0
HWQ	SZ	57	17	EP		15 7	12.45	0.04							1.0

September 11 2014 Hour: 15:55 40.4 Lat: 33.81N Lon: 35.77E Depth: 7 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	314	EP		1555	43.13	0.04	38						1.0
BHL	BE	14	314	ES		1555	45.09	0.03							1.0
DQRL	SZ	22	236	EP		1555	44.00	-0.19							1.0
DQRL	SN	22	236	ES		1555	46.99	0.02							1.0
BEYL	SZ	26	284	EP		1555	44.77	-0.00							1.0
HWQ	SZ	54	18	EP		1555	49.22	-0.03							1.0

September 11 2014 Hour: 16:20 50.7 Lat: 33.90N Lon: 35.39E Depth: 28 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	24	89	EP		1620	56.52	-0.04							1.0
BHL	BN	24	89	ES		1621	0.84	-0.04							1.0
DQRL	SZ	27	143	EP		1620	56.82	-0.05	42						1.0
DQRL	SN	27	143	ES		1621	1.51	0.10							1.0
QRWL	SZ	48	146	EP		1620	59.28	-0.01							1.0
QRWL	SN	48	146	ES		1621	5.62	-0.02							1.0
HWQ	SZ	66	51	EP		1621	1.88	0.06							1.0

September 12 2014 Hour: 1:42 7.3 Lat: 33.20N Lon: 35.73E Depth: 8 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	17	3	EP		142	10.44	-0.02							1.0
SHBL	BN	17	3	ES		142	12.77	-0.02							1.0
RCY	SZ	35	16	EP		142	13.13	0.02	59						1.0
RCY	SN	35	16	ES		142	17.40	0.01							1.0
QRWL	SZ	39	353	EP		142	13.84	0.02							1.0
DQRL	SZ	58	345	EP		142	16.87	0.00							1.0
DQRL	SN	58	345	ES		142	23.93	0.00							1.0
BHL	BZ	79	355	EP		142	20.12	0.00							1.0
HWQ	SZ	121	9	EP		142	26.53	-0.02							1.0

September 12 2014 Hour: 14:11 52.0 Lat: 33.87N Lon: 35.83E Depth: 4 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	283	EP		1411	54.86	-0.03	51						1.0
BHL	BN	17	283	ES		1411	57.06	0.02							1.0
DQRL	SZ	31	233	EP		1411	57.06	0.06							1.0
DQRL	SN	31	233	ES		1412	0.69	-0.02							1.0
QRWL	SZ	39	202	EP		1411	58.20	-0.06							1.0
RCY	SZ	42	180	EP		1411	58.73	-0.02							1.0
RCY	SE	42	180	ES		1412	3.77	0.01							1.0
HWQ	SZ	46	13	EP		1411	59.52	0.00							1.0
SHBL	BZ	59	188	EP		1412	1.51	0.03							1.0

September 12 2014 Hour: 21:56 49.7

Agency: REL Regional

EMSC OT=21:56:49.7 34.53N 23.37E 50Km M=4.5 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		2159	8.87								
QRWL	SZ			EP		2159	11.02								
SHBL	BZ			EP		2159	11.84								
RCY	SZ			EP		2159	13.19								

September 12 2014 Hour: 22:21 4.5

Agency: REL Regional

EMSC OT=22:21:04.5 35.97N 31.38E 10Km M=3.3 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		2222	14.55								
QRWL	SZ			EP		2222	11.93								

September 12 2014 Hour: 22:55 38.6

Agency: REL Regional

EMSC OT=22:55:38.6 36.21N 30.92E 60Km M=4.4 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2256	42.55								
DQRL	SZ			EP		2256	43.10								
QRWL	SZ			EP		2256	45.95								
RCY	SZ			EP		2256	48.11								
SHBL	BZ			EP		2256	48.33								

September 13 2014 Hour: 14:41 43.1 Lat: 33.79N Lon: 35.80E Depth: 12 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	313	EP		1441	46.70	-0.01	37						1.0
BHL	BN	18	313	ES		1441	49.40	-0.00							1.0
DQRL	SZ	23	245	EP		1441	47.40	0.02							1.0
QRWL	SZ	29	201	EP		1441	48.25	-0.00							1.0
HWQ	SZ	56	14	EP		1441	52.30	-0.01							1.0
HWQ	SE	56	14	ES		1441	59.16	0.01							1.0

September 14 2014 Hour: 6:1 22.2

Agency: REL Regional

EMSC OT=06:01:22.2 34.20N 25.12E 10Km M=4.5 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		6 3	31.96								
RCY	SZ			EP		6 3	30.39								

September 14 2014 Hour: 12:15 51.2 Lat: 33.49N Lon: 35.69E 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	6	352	EP		1215	52.13	-0.09							1.0
RCY	SZ	14	89	EP		1215	53.48	0.05	30						1.0
RCY	SN	14	89	ES		1215	55.03	-0.01							1.0
DQRL	SZ	26	335	EP		1215	55.43	-0.01							1.0
DQRL	SN	26	335	ES		1215	58.61	0.06							1.0

September 14 2014 Hour: 12:28 57.5 Lat: 33.81N Lon: 35.78E Depth: 18 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	310	EP		1229	1.39	-0.00	34						1.0
BHL	BN	16	310	ES		1229	4.30	-0.01							1.0
DQRL	SZ	23	239	EP		1229	2.23	0.01							1.0
RCY	SZ	36	172	EP		1229	3.84	-0.03							1.0
RCY	SN	36	172	ES		1229	8.64	0.02							1.0
HWQ	SZ	54	16	EP		1229	6.42	0.01							1.0

September 14 2014 Hour: 19:45 46.0 Lat: 33.48N Lon: 36.37E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

DAMASCUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	49	272	EP		1945	53.97	-0.02	45						1.0
RCY	SE	49	272	ES		1945	59.82	-0.05							1.0
SHBL	BZ	60	256	EP		1945	55.75	0.08							1.0
DQRL	SZ	78	289	EP		1945	58.57	-0.03							1.0
DQRL	SN	78	289	ES		1946	7.99	0.09							1.0
BHL	BZ	81	306	EP		1945	58.92	-0.17							1.0
HWQ	SZ	97	336	EP		1946	1.69	0.09							1.0

September 15 2014 Hour: 15:14 38.0 Lat: 33.80N Lon: 35.78E Depth: 10 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	316	EP		1514	41.25	-0.02	36						1.0
DQRL	SZ	22	242	EP		1514	41.97	-0.01							1.0
DQRL	SN	22	242	ES		1514	44.94	0.01							1.0
RCY	SZ	34	171	EP		1514	43.77	-0.00							1.0
RCY	SN	34	171	ES		1514	48.04	-0.00							1.0
HWQ	SZ	56	16	EP		1514	47.18	0.01							1.0

September 15 2014 Hour: 15:16 40.2 Lat: 33.79N Lon: 35.79E 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	17	315	EP		1516	43.84	-0.00	45						1.0
DQRL	SZ	22	244	EP		1516	44.45	-0.05							1.0
DQRL	SN	22	244	ES		1516	47.71	0.03							1.0
RCY	SZ	33	172	EP		1516	46.08	-0.00							1.0
RCY	SN	33	172	ES		1516	50.44	0.01							1.0
HWQ	SZ	56	15	EP		1516	49.44	0.01							1.0

September 16 2014 Hour: 1: 8 20.0

Agency: REL Distant

EMSC OT=01:08:20.0 21.03S 178.93W 639Km M=5.2 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		126	53.13								
RCY	SZ			EP		126	53.23								
QRWL	SZ			EP		126	53.55								
DQRL	SZ			EP		126	53.52								

September 16 2014 Hour: 3:28 31.7

Agency: REL Distant

EMSC OT=03:28:31.7 36.09N 139.81E 60Km M=5.6 HONSHU, JAPAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		340	38.89								
RCY	SZ			EP		340	39.94								
DQRL	SZ			EP		340	40.19								
QRWL	SZ			EP		340	40.25								
SHBL	BZ			EP		340	40.75								

September 16 2014 Hour: 13:0 19.9

Agency: REL Distant

EMSC OT=13:00:19.9 22.29S 179.46W 580Km M=5.4 FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1318	59.36								
SHBL	BZ			EP		1318	59.88								
DQRL	SZ			EP		1318	59.96								

September 16 2014 Hour: 16:2 1.7 Lat: 33.50N Lon: 35.69E 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	356	EP		16 2	2.42	-0.07	26						1.0
QRWL	SN	5	356	ES		16 2	3.10	0.02							1.0
RCY	SZ	14	93	EP		16 2	3.96	0.01							1.0
RCY	SN	14	93	ES		16 2	5.63	0.00							1.0
DQRL	SZ	25	334	EP		16 2	5.74	0.04							1.0

September 16 2014 Hour: 16:8 23.3 Lat: 33.55N Lon: 35.71E Depth: 0 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	3	257	EP		16 8	23.74	-0.08	22						1.0
RCY	SZ	13	119	EP		16 8	25.39	-0.06							1.0
DQRL	SZ	21	322	EP		16 8	26.86	0.08							1.0
DQRL	SN	21	322	ES		16 8	29.33	-0.01							1.0
SHBL	BZ	23	173	EP		16 8	27.08	0.04							1.0
SHBL	BN	23	173	ES		16 8	29.81	0.03							1.0

September 18 2014 Hour: 15:42 48.0 Lat: 33.81N Lon: 35.76E Depth: 20 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	316	EP		1542	52.03	-0.03	38						1.0
DQRL	SZ	21	237	EP		1542	52.69	-0.05							1.0
DQRL	SN	21	237	ES		1542	56.29	0.05							1.0
RCY	SZ	36	169	EP		1542	54.58	0.03							1.0
RCY	SN	36	169	ES		1542	59.37	-0.02							1.0
HWQ	SZ	55	18	EP		1542	57.18	0.02							1.0

September 19 2014 Hour: 3:23 11.2 Lat: 33.67N Lon: 35.89E Depth: 9 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	19	195	EP		323	14.76	-0.02	43						1.0
RCY	SN	19	195	ES		323	17.42	0.01							1.0
QRWL	SZ	23	236	EP		323	15.25	-0.06							1.0
DQRL	SZ	30	279	EP		323	16.32	-0.00							1.0
DQRL	SN	30	279	ES		323	20.11	0.02							1.0
BHL	BZ	34	321	EP		323	17.00	0.01							1.0
SHBL	BZ	38	201	EP		323	17.58	0.04							1.0

September 19 2014 Hour: 11:7 44.6 Lat: 33.93N Lon: 35.75E Depth: 27 Agency: REL Local

Magnitudes: 2.5MC REL

Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	9	252	EP		11 7	49.11	-0.01	30						1.0
BHL	BE	9	252	ES		11 7	52.49	-0.01							1.0
DQRL	SZ	30	214	EP		11 7	50.92	0.04							1.0
HWQ	SZ	43	25	EP		11 7	52.47	0.02							1.0
RCY	SZ	49	171	EP		11 7	53.19	-0.06							1.0
RCY	SN	49	171	ES		11 7	59.72	0.03							1.0

September 19 2014 Hour: 11:19 6.9 Lat: 33.79N Lon: 35.73E Depth: 16 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	331	EP		1119	10.33	-0.09	36						1.0
DQRL	SZ	18	236	EP		1119	10.80	-0.01							1.0
DQRL	SN	18	236	ES		1119	13.78	0.07							1.0
QRWL	SZ	28	189	EP		1119	11.99	-0.07							1.0
RCY	SZ	34	163	EP		1119	13.01	-0.03							1.0
RCY	SN	34	163	ES		1119	17.62	0.03							1.0
HWQ	SZ	57	20	EP		1119	16.42	0.08							1.0

September 19 2014 Hour: 15:42 58.1 Lat: 33.86N Lon: 35.82E 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	16	286	EP		1543	0.65	-0.06	53						1.0
BHL	BN	16	286	ES		1543	2.64	0.01							1.0
DQRL	SZ	29	233	EP		1543	2.88	0.07							1.0
RCY	SZ	41	178	EP		1543	4.67	-0.02							1.0
RCY	SN	41	178	ES		1543	9.55	-0.01							1.0
HWQ	SZ	47	14	EP		1543	5.79	0.02							1.0

September 19 2014 Hour: 15:44 22.8 Lat: 33.79N Lon: 35.77E Depth: 10 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	16	319	EP		1544	26.01	-0.01	29						1.0
DQRL	SZ	21	243	EP		1544	26.60	-0.02							1.0
DQRL	SN	21	243	ES		1544	29.48	0.02							1.0
RCY	SZ	33	170	EP		1544	28.51	0.02							1.0
RCY	SN	33	170	ES		1544	32.70	-0.01							1.0
HWQ	SZ	56	17	EP		1544	32.07	0.01							1.0

September 20 2014 Hour: 1:25 26.6 Lat: 33.69N Lon: 35.92E Depth: 6 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
RCY	SZ	22	200	EP		125	30.42	-0.00	24						1.0
RCY	SN	22	200	ES		125	33.22	-0.01							1.0
DQRL	SZ	32	274	EP		125	31.93	-0.05							1.0
DQRL	SN	32	274	ES		125	35.97	0.02							1.0
BHL	BZ	35	315	EP		125	32.34	0.02							1.0
SHBL	BZ	41	204	EP		125	33.33	0.02							1.0

September 20 2014 Hour: 2:27 22.9 Agency: REL Regional

EMSC OT=02:27:22.9 35.94N 29.47E 48Km M=3.0 MEDITERRANEAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		228	41.05								
DQRL	SZ			EP		228	40.50								
QRWL	SZ			EP		228	43.04								
RCY	SZ			EP		228	44.89								

September 20 2014 Hour: 2:52 57.3 Agency: REL Regional

EMSC OT=02:52:57.3 39.16N 38.70E 7Km M=4.3 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		254	20.39								
BHL	BZ			EP		254	27.30								
DQRL	SZ			EP		254	30.50								
QRWL	SZ			EP		254	31.50								
SHBL	BZ			EP		254	34.60								

September 20 2014 Hour: 7:15 46.5

Agency: REL Distant

EMSC OT=07:15:46.5 17.67S 178.71W 550Km M=5.4 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		734	23.70								
RCY	SZ			EP		734	23.92								
DQRL	SZ			EP		734	24.30								

September 20 2014 Hour: 11:26 47.4 Lat: 33.49N Lon: 35.66E Depth: 13 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	7	15	EP		1126	50.02	-0.02							1.0
QRWL	SN	7	15	ES		1126	51.97	0.01							1.0
RCY	SZ	16	87	EP		1126	51.01	0.01	41						1.0
SHBL	BZ	17	154	EP		1126	51.16	0.00							1.0
SHBL	BN	17	154	ES		1126	53.90	-0.00							1.0
DQRL	SZ	26	340	EP		1126	52.20	0.00							1.0

September 20 2014 Hour: 18:43 13.0 Lat: 34.03N Lon: 35.73E Depth: 4 Agency: REL Local

Magnitudes: 3.2MC REL

Rms: 0.1 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	207	EP		1843	15.65	-0.01	79						1.0
BHL	BN	16	207	ES		1843	17.61	-0.04							1.0
BEYL	SZ	28	231	EP		1843	17.63	0.03							0.2
HWQ	SZ	34	36	EP		1843	18.48	-0.02							1.0
HWQ	SN	34	36	ES		1843	22.61	0.04							1.0
DQRL	SZ	39	203	EP		1843	19.41	0.07							1.0
DQRL	SN	39	203	ES		1843	24.11	0.06							1.0
QRWL	SZ	54	185	EP		1843	21.70	-0.00							1.0
RCY	SZ	60	171	EP		1843	22.65	-0.06							1.0
RCY	SN	60	171	ES		1843	29.98	0.07							1.0
SHBL	BZ	76	179	EP		1843	25.11	-0.12							1.0

September 21 2014 Hour: 8:16 1.2 Lat: 33.45N Lon: 35.64E Depth: 1 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	22	EP		816	2.98	-0.06							1.0
QRWL	SN	11	22	ES		816	4.40	0.01							1.0
SHBL	BZ	15	140	EP		816	3.73	0.00							1.0
SHBL	BN	15	140	ES		816	5.60	0.01							1.0
RCY	SZ	19	76	EP		816	4.33	0.02	40						1.0
DQRL	SZ	29	348	EP		816	5.81	-0.02							1.0
DQRL	SN	29	348	ES		816	9.28	0.04							1.0
BHL	BZ	50	2	EP		816	9.28	0.01							1.0

September 22 2014 Hour: 7:25 37.2 Lat: 35.43N Lon: 35.67E Depth: 18 Agency: REL Regional

Magnitudes: 4.1MC REL

Rms: 0.2 secs

COAST OF SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	130	169	EP		725	57.29	-0.08							1.0
HWQ	SE	130	169	ES		726	12.34	0.05							1.0
BHL	BZ	169	180	EP		726	2.27	-0.33	249						1.0
BHL	BN	169	180	ES		726	21.18	-0.20							1.0
BEYL	SZ	173	185	EP		726	3.28	0.24							1.0
DQRL	SZ	191	183	EP		726	5.28	-0.07							1.0
DQRL	SE	191	183	ES		726	26.36	0.18							1.0
QRWL	SZ	209	180	EP		726	7.38	-0.12							1.0
RCY	SZ	215	176	EP		726	8.41	0.09							1.0
RCY	SN	215	176	ES		726	31.35	0.01							1.0
SHBL	BZ	231	178	EP		726	10.58	0.27							1.0
SHBL	BN	231	178	ES		726	34.76	-0.04							1.0

September 22 2014 Hour: 9:50 29.7 Lat: 33.54N 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	282	EP		950	30.12	-0.03							1.0
RCY	SZ	13	114	EP		950	31.73	-0.06	42						1.0
RCY	SN	13	114	ES		950	33.36	0.03							1.0
SHBL	BZ	22	172	EP		950	33.27	0.03							1.0
DQRL	SZ	22	325	EP		950	33.30	0.00							1.0
DQRL	SN	22	325	ES		950	35.98	0.03							1.0

September 22 2014 Hour: 13:36 20.7 Lat: 33.46N Lon: 35.56E Depth: 15 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	15	49	EP		1336	24.31	0.08							1.0
SHBL	BZ	21	126	EP		1336	25.03	0.03							1.0
SHBL	BN	21	126	ES		1336	28.13	-0.05							1.0
RCY	SZ	26	81	EP		1336	25.64	0.02	36						1.0
RCY	SN	26	81	ES		1336	29.24	-0.02							1.0
DQRL	SZ	27	2	EP		1336	25.73	-0.07							1.0

September 22 2014 Hour: 14:41 22.6 Agency: REL Distant

EMSC OT=14:41:22.6 40.55S 175.97E 35Km M=5.3 NEW ZEALAND ISLAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		15	1	5.43							
SHBL	BZ			EP		15	1	4.85							

September 22 2014 Hour: 18:3 38.5 Lat: 32.64N Lon: 35.24E Depth: 4 Agency: REL Regional
Magnitudes: 3.0MC REL Rms: 0.1 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	91	31	EP		18	3	53.20	-0.04						1.0
SHBL	BN	91	31	ES		18	4	4.17	-0.01						1.0
QRWL	SZ	109	22	EP		18	3	56.02	0.02						1.0
RCY	SZ	110	30	EP		18	3	56.22	0.00	51					1.0
RCY	SN	110	30	ES		18	4	9.39	0.03						1.0
DQRL	SZ	122	15	EP		18	3	57.82	-0.17						1.0
DQRL	SN	122	15	ES		18	4	12.41	-0.03						1.0
BHL	BZ	145	15	EP		18	4	1.61	0.20						1.0
BHL	BE	145	15	ES		18	4	18.41	0.01						1.0
HWQ	SZ	193	20	EP		18	4	8.08	-0.00						1.0

September 25 2014 Hour: 10:14 7.2 Lat: 33.50N Lon: 35.67E Depth: 0 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.1 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	6	13	EP		1014	8.02	-0.07	23						1.0
QRWL	SN	6	13	ES		1014	8.76	-0.00							1.0
RCY	SZ	16	91	EP		1014	9.61	-0.07							1.0
RCY	SN	16	91	ES		1014	11.61	0.07							1.0
DQRL	SZ	25	338	EP		1014	11.25	0.08							1.0

September 25 2014 Hour: 16:36 47.2 Lat: 33.80N Lon: 35.78E Depth: 13 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	317	EP		1636	50.65	-0.03	34						1.0
DQRL	SZ	22	243	EP		1636	51.31	-0.02							1.0
DQRL	SN	22	243	ES		1636	54.47	0.06							1.0
QRWL	SZ	29	198	EP		1636	52.24	-0.10							1.0
RCY	SZ	34	171	EP		1636	53.09	0.02							1.0
RCY	SE	34	171	ES		1636	57.47	0.04							1.0

HWQ SZ 56 16 EP 1636 56.48 0.04 1.0

September 26 2014 Hour: 14:32 9.9 Lat: 33.82N Lon: 35.78E Depth: 17 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	308	EP		1432	13.69	0.01	28						1.0
BHL	BN	15	308	ES		1432	16.43	-0.01							1.0
DQRL	SZ	23	236	EP		1432	14.65	0.01							1.0
RCY	SZ	37	172	EP		1432	16.39	-0.04							1.0
RCY	SN	37	172	ES		1432	21.26	0.02							1.0
HWQ	SZ	53	17	EP		1432	18.91	0.14							0.2

September 27 2014 Hour: 15:35 43.4 Lat: 33.42N Lon: 35.68E Depth: 5 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	10	143	EP		1535	45.31	-0.11							1.0
SHBL	BE	10	143	ES		1535	47.01	0.07							1.0
QRWL	SZ	14	2	EP		1535	45.82	-0.04	35						1.0
RCY	SZ	17	61	EP		1535	46.43	0.09							1.0
RCY	SN	17	61	ES		1535	48.49	-0.04							1.0
DQRL	SZ	33	343	EP		1535	48.83	0.04							1.0

September 27 2014 Hour: 16:49 51.3 Lat: 33.49N Lon: 35.63E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	8	35	EP		1649	52.60	-0.00							1.0
SHBL	BZ	19	146	EP		1649	54.24	-0.06							1.0
SHBL	BN	19	146	ES		1649	56.56	0.03							1.0
RCY	SZ	19	87	EP		1649	54.36	0.01	47						1.0
DQRL	SZ	25	347	EP		1649	55.39	0.10							1.0
DQRL	SN	25	347	ES		1649	58.20	-0.06							1.0
BHL	BZ	46	3	EP		1649	58.74	-0.00							1.0

September 28 2014 Hour: 10:56 29.3 Lat: 33.56N Lon: 36.55E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC 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	66	264	EP		1056	40.02	-0.01	33						1.0
RCY	SN	66	264	ES		1056	47.92	-0.03							1.0
BHL	BZ	91	295	EP		1056	43.97	-0.03							1.0
DQRL	SZ	92	280	EP		1056	44.20	0.05							1.0
DQRL	SN	92	280	ES		1056	55.14	0.02							1.0
HWQ	SZ	97	325	EP		1056	44.95	-0.01							1.0

September 29 2014 Hour: 15:31 21.0 Lat: 33.42N Lon: 35.69E Depth: 6 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	9	146	EP		1531	22.93	-0.05							1.0
SHBL	BN	9	146	ES		1531	24.45	0.04							1.0
QRWL	SZ	14	358	EP		1531	23.53	-0.07							1.0
RCY	SZ	16	58	EP		1531	23.93	0.01	28						1.0
RCY	SN	16	58	ES		1531	26.05	0.00							1.0
DQRL	SZ	34	341	EP		1531	26.65	0.07							1.0

September 29 2014 Hour: 21:43 5.4 Lat: 34.63N Lon: 34.00E Depth: 0 Agency: REL Regional
 Magnitudes: 3.5MC REL Rms: 0.2 secs

CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	172	117	EP		2143	32.28	-0.33							1.0
DQRL	SZ	177	125	EP		2143	33.04	-0.31	107						1.0
DQRL	SN	177	125	ES		2143	54.13	0.08							1.0
HWQ	SZ	183	102	EP		2143	34.38	0.17							1.0
QRWL	SZ	196	127	EP		2143	35.93	0.09							1.0
RCY	SZ	211	126	EP		2143	37.82	0.09							1.0
SHBL	BZ	215	131	EP		2143	38.40	0.19							1.0
SHBL	BN	215	131	ES		2144	2.54	0.03							1.0

September 30 2014 Hour: 14: 0 18.2 Lat: 33.45N Lon: 35.66E Depth: 4 Agency: REL Local
 Magnitudes: 2.4MC 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		14 0	19.96	-0.13	26						1.0
SHBL	BZ	14	147	EP		14 0	20.60	-0.04							1.0
SHBL	BE	14	147	ES		14 0	22.51	0.05							1.0
RCY	SZ	17	74	EP		14 0	20.95	-0.12							1.0
RCY	SN	17	74	ES		14 0	23.30	0.09							1.0
DQRL	SZ	29	343	EP		14 0	23.11	0.15							1.0

September 30 2014 Hour: 14:12 17.3 Lat: 33.80N Lon: 35.80E Depth: 12 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	311	EP		1412	20.87	0.01	34						1.0
BHL	BE	18	311	ES		1412	23.52	0.00							1.0
DQRL	SZ	23	243	EP		1412	21.64	-0.01							1.0
RCY	SZ	34	174	EP		1412	23.21	0.01							1.0
RCY	SN	34	174	ES		1412	27.57	-0.01							1.0
HWQ	SZ	55	15	EP		1412	26.39	-0.01							1.0

September 30 2014 Hour: 22:34 27.4

Agency: REL Distant

EMSC OT=22:34:27.4 17.83S 178.55W 575Km M=5.5 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		2253	1.38								
BHL	BZ			EP		2253	2.70								
RCY	SZ			EP		2253	2.93								
QRWL	SZ			EP		2253	3.21								
DQRL	SZ			EP		2253	3.44								
SHBL	BZ			EP		2253	3.50								

Epicentral Map of Lebanon

SEPTEMBER 2014

