

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

February

2013

Prepared by
The National Centre for Geophysical Research
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GENERAL BULLETIN INFORMATION

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

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

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

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

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

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

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

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

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

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

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

STATIONS USED

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

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

STATION	LATITUDE	LONGITUDE	HEIGHT (m)	NAME	COMMENTS
BHL	3354.25N	3539.25E	1000	BHANNES	Opened May 1980
HWQ	3416.68N	3556.78E	1161	HAWQA	Opened Jan 2001
MATL	3329.32N	3519.78E	5	MATARIH	Opened Nov 2000
FKH	3414.69N	3624.61E	1152	FAKEHEH	Opened Dec 2004
RCY	3329.79N	3550.14E	1370	RACHAYA	Opened Jun 2006
DWR	3323.13N	3524.08E	420	DWEIR	Scheduled 2003
BEYL	3352.30N	3529.59E	49	BEIRUT	Opened Jul 2006
NAQL	3307.02N	3508.46E	83	NAQOURA	Opened Jul 2008
DQRL	3342.34N	3534.21E	963	DEIR QAMAR	Opened Mar 2010
QRWL	3332.86N	3540.93E	875	QARAOUN	Opened Oct 2011
SHBL	3320.90N	3544.63E	1422	CHEBAA	Opened Oct 2011

REGIONAL AND DISTANT EARTHQUAKES

Because regional events and teleseisms are not localized, but simply identified, EMSC determination data are given along with phase arrivals (in general first arrival) at the stations of our network.

MACROSEISMIC DATA

Macroseismic data, if available, are included in the bulletin.

MONTHLY EPICENTER MAPS

Maps will be found on the last page.

ELECTRONIC PUBLICATION

This provisional bulletin is available for download in pdf format on:
<http://www.cnrs.edu.lb/grdownload.html>

REFERENCES

- Havskov, J. and Ottemoller, L. (2001). SEISAN: The Earthquake Analysis Software. -version 7.2-
Institute of Solid Earth Physics, University of Bergen.
<http://www.ifjf.uib.no/seismo/software/seisan.html>
- Lienert, B.R., Berg, E. and Frazer, L.N. (1986). Hypocenter: An earthquake location method using centered, scaled, and adaptively least squares. Bull. Seism. Soc. Am., 76., pp 771-783.

Abbreviations:

TIME: Origin time in UTC (hr. min. and sec.) or data file onset time if event is not located.

LAT: Latitude of epicenter

LON: Longitude of epicenter

DEPTH: Focal depth in kilometer (trailing F indicates fixed depth)

AGENCY: REL throughout the bulletin, aka. REsearch Lebanon

MAGNITUDES: Up to 3 different magnitudes can be given followed by type and reporting agency, e.g. 3.1 MC REL - coda magnitude calculated according to above mentioned formula.

EMSC: Euro-Mediterranean Seismological Centre.

OT: Origin Time

RMS: Root mean square value of travel time residuals

STAT: Station code

CO: Component; S:short period, L:long period, B:broadband.

DIST: Epicenter distance (km)

AZI: Azimuth from source to station

PHAS: Phase; The first letter characterizes onset E(mergent) or I(mpulsive)

P: Polarity (C for compression, D for dilatation)

HR: Hour

MN: Minute

SECON: Seconds

TRES: Residual (seconds)

CODA: Signal duration in seconds

AMPL: Ground Amplitude ($0.5 * (\text{peak to peak})$), (nm) at period PERI

PERI: Period where amplitude is measured

BAZ: Back azimuth (station to event)

ARES: Back azimuth residual

VELO: Apparent phase velocity (km/sec)

WT: Weight of phase in the location

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

February 1 2013 Hour: 4:55 31.6 Lat: 33.50N Lon: 36.16E Depth: 11 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
RCY	SZ	30	270	EP		455	36.92	-0.01	38						1.0
RCY	SN	30	270	ES		455	40.85	0.01							1.0
DQRL	SZ	59	293	EP		455	41.40	-0.01							1.0
BHL	BZ	65	314	EP		455	42.31	0.01							1.0
BHL	BE	65	314	ES		455	50.19	-0.00							1.0

February 2 2013 Hour: 5:0 49.5 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		5 3	56.94								
HWQ	SZ			EP		5 3	58.69								
BHL	BZ			EP		5 4	4.69								
DQRL	SZ			EP		5 4	1.37								

February 2 2013 Hour: 11:33 54.0 Agency: REL Regional

EMSC OT=11:33:54.0 34.26N 25.05E 10Km ML=4.9 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1136	2.63								
HWQ	SZ			EP		1136	4.87								

February 2 2013 Hour: 12:48 42.9 Lat: 33.36N Lon: 35.59E Depth: 12 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	15	94	EP		1248	46.11	-0.02							1.0
SHBL	BN	15	94	ES		1248	48.52	0.02							1.0
QRWL	SZ	23	23	EP		1248	47.14	-0.01							1.0
QRWL	SN	23	23	ES		1248	50.25	-0.03							1.0
RCY	SZ	28	56	EP		1248	47.87	-0.02	33						1.0
RCY	SN	28	56	ES		1248	51.58	0.02							1.0
DQRL	SZ	39	357	EP		1248	49.54	0.04							1.0

February 2 2013 Hour: 14:17 34.0 Agency: REL Distant

EMSC OT=14:17:34.0 42.79N 143.17E 100Km ML=6.9 HOKKAIDO, JAPAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1429	25.45								
BHL	BZ			EP		1429	27.30								
RCY	SZ			EP		1429	28.59								
QRWL	SZ			EP		1429	28.93								
SHBL	BZ			EP		1429	29.62								

February 2 2013 Hour: 15:42 7.0 Lat: 33.84N Lon: 35.79E 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	15	298	EP		1542	9.35	-0.04	51						1.0
DQRL	SZ	26	234	EP		1542	11.25	0.09	63						1.0
QRWL	SZ	34	197	EP		1542	12.52	-0.03							1.0
QRWL	SN	34	197	ES		1542	16.55	-0.08							1.0
RCY	SZ	39	174	EP		1542	13.18	-0.06							1.0
RCY	SN	39	174	ES		1542	17.89	0.05							1.0
HWQ	SZ	50	16	EP		1542	15.17	0.00							1.0
SHBL	BZ	55	185	EP		1542	15.89	-0.00							1.0

February 3 2013 Hour: 12:24 30.3 Lat: 33.35N Lon: 35.57E Depth: 15 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	89	EP		1224	34.09	-0.01							1.0
SHBL	BE	17	89	ES		1224	36.92	0.01							1.0
QRWL	SZ	25	26	EP		1224	35.11	0.04							1.0
QRWL	SE	25	26	ES		1224	38.58	-0.02							1.0
RCY	SZ	30	56	EP		1224	35.81	-0.02	39						1.0
RCY	SN	30	56	ES		1224	39.94	0.01							1.0
DQRL	SZ	40	1	EP		1224	37.20	0.01							0.2
BHL	BZ	63	8	EP		1224	40.48	-0.02							0.2

February 3 2013 Hour: 12:47 48.9 Lat: 33.45N Lon: 35.62E Depth: 5 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	13	28	EP		1247	51.12	-0.03							1.0
QRWL	SN	13	28	ES		1247	52.84	-0.01							1.0
SHBL	BZ	16	133	EP		1247	51.64	-0.02							1.0
SHBL	BN	16	133	ES		1247	53.75	0.02							1.0
RCY	SZ	21	75	EP		1247	52.38	-0.02	33						1.0
RCY	SE	21	75	ES		1247	55.05	0.02							1.0
DQRL	SZ	29	351	EP		1247	53.70	0.03							1.0

February 3 2013 Hour: 13:43 42.5 Lat: 33.28N Lon: 35.71E Depth: 20 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
SHBL	BZ	8	24	EP		1343	46.11	-0.00							1.0
RCY	SZ	27	26	EP		1343	47.88	0.00	24						1.0
RCY	SE	27	26	ES		1343	51.87	-0.00							1.0
DQRL	SZ	49	345	EP		1343	50.80	-0.00							1.0
DQRL	SN	49	345	ES		1343	56.96	0.00							1.0

February 3 2013 Hour: 15: 0 30.5 Lat: 33.51N Lon: 35.65E Depth: 3 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	5	40	EP		15 0	31.54	-0.07	24						1.0
QRWL	SE	5	40	ES		15 0	32.45	0.03							1.0
RCY	SZ	18	95	EP		15 0	33.49	0.01							1.0
SHBL	BZ	20	153	EP		15 0	33.86	-0.01							1.0
SHBL	BE	20	153	ES		15 0	36.36	0.01							1.0
DQRL	SZ	23	342	EP		15 0	34.28	0.03							1.0

February 4 2013 Hour: 7:56 55.0 Agency: REL Regional
EMSC OT=07:56:55.0 34.72N 24.16E 30Km ML=4.4 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		759	11.44								

February 4 2013 Hour: 11: 6 58.9 Lat: 33.38N Lon: 35.61E Depth: 4 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	13	106	EP		11 7	1.24	-0.01							1.0
QRWL	SZ	20	20	EP		11 7	2.31	0.07							1.0
QRWL	SN	20	20	ES		11 7	4.69	0.00							1.0
RCY	SZ	25	58	EP		11 7	3.06	0.04	35						1.0
RCY	SE	25	58	ES		11 7	6.01	-0.03							1.0
DQRL	SZ	36	354	EP		11 7	4.80	-0.06							1.0

February 4 2013 Hour: 12:9 2.3 Lat: 33.45N Lon: 35.61E Depth: 6 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	32	EP		12 9	4.62	0.01							1.0
QRWL	SE	13	32	ES		12 9	6.36	-0.00							1.0
SHBL	BZ	17	133	EP		12 9	5.28	0.00							1.0
RCY	SZ	22	77	EP		12 9	5.96	-0.00	29						1.0
RCY	SN	22	77	ES		12 9	8.71	-0.00							1.0
DQRL	SZ	28	353	EP		12 9	7.01	0.02							0.2

February 4 2013 Hour: 13:11 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1311	47.77								
RCY	SZ			EP		1311	47.60								

February 4 2013 Hour: 14:36 57.7 Lat: 33.34N Lon: 35.58E Depth: 14 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	15	85	EP		1437	1.37	0.04							1.0
QRWL	SZ	25	22	EP		1437	2.37	-0.16							1.0
QRWL	SN	25	22	ES		1437	6.11	0.04							1.0
RCY	SZ	30	53	EP		1437	3.18	0.01	34						1.0
RCY	SN	30	53	ES		1437	7.20	0.00							1.0
DQRL	SZ	41	359	EP		1437	4.85	0.08							1.0

February 4 2013 Hour: 15:33 45.2 Lat: 33.80N Lon: 35.78E 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	17	317	EP		1533	48.71	-0.00	34						1.0
DQRL	SZ	22	243	EP		1533	49.42	0.05							1.0
DQRL	SN	22	243	ES		1533	52.42	-0.01							1.0
QRWL	SZ	29	198	EP		1533	50.34	-0.06							1.0
RCY	SN	34	171	EP		1533	51.15	0.02							1.0
RCY	SE	34	171	ES		1533	55.49	0.01							1.0
HWQ	SZ	56	16	EP		1533	54.50	-0.01							1.0

February 5 2013 Hour: 12:37 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		1237	37.98								
RCY	SZ			EP		1237	39.68								

February 5 2013 Hour: 13:8 41.4 Lat: 33.35N Lon: 35.58E Depth: 9 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
SHBL	BZ	15	90	EP		13 8	44.52	-0.00							1.0
QRWL	SZ	24	23	EP		13 8	45.72	0.01							1.0
QRWL	SE	24	23	ES		13 8	48.85	-0.01							1.0
RCY	SZ	29	55	EP		13 8	46.45	-0.01	26						1.0
RCY	SN	29	55	ES		13 8	50.18	0.01							1.0

February 7 2013 Hour: 12:16 30.9 Lat: 33.81N Lon: 35.76E Depth: 24 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	318	EP		1216	35.48	0.09	37						1.0
BHL	BN	14	318	ES		1216	38.69	-0.01							1.0
DQRL	SZ	21	236	EP		1216	35.99	0.00							1.0
DQRL	SE	21	236	ES		1216	39.70	-0.04							1.0
RCY	SZ	36	168	EP		1216	37.75	0.01							1.0

HWQ SZ 55 19 EP 1216 40.20-0.05 1.0

February 7 2013 Hour: 14:30 57.6 Lat: 36.20N Lon: 36.04E Depth: 15 Agency: REL Regional
Magnitudes: 3.5MC REL Rms: 0.0 secs

CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	213	182	EP		1431	28.76	0.05	102						1.0
HWQ	SN	213	182	ES		1431	51.66	-0.04							1.0
BHL	BZ	257	188	EP		1431	34.10	-0.02							1.0
BHL	BE	257	188	ES		1432	1.13	0.01							1.0
DQRL	SZ	280	189	EP		1431	36.96	-0.00							1.0
RCY	SZ	300	184	EP		1431	39.51	-0.03							1.0
RCY	SE	300	184	ES		1432	10.60	0.04							1.0

February 8 2013 Hour: 6:15 44.6 Lat: 32.99N Lon: 35.89E Depth: 9 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

NORTH GALILEE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ	42	341	EP		615	51.43	-0.10							1.0
SHBL	BN	42	341	ES		615	56.67	0.01							1.0
RCY	SZ	56	355	EP		615	53.86	0.06	52						1.0
RCY	SN	56	355	ES		616	0.60	-0.01							1.0
DQRL	SZ	84	340	EP		615	58.39	0.07							1.0
HWQ	SZ	143	2	EP		616	6.89	-0.02							1.0

February 8 2013 Hour: 13:19 48.6 Lat: 33.37N Lon: 35.61E Depth: 7 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	13	100	EP		1319	51.14	0.01							1.0
QRWL	SZ	21	19	EP		1319	52.23	-0.05							1.0
QRWL	SE	21	19	ES		1319	54.98	0.00							1.0
RCY	SZ	25	56	EP		1319	52.96	-0.01	34						1.0
RCY	SE	25	56	ES		1319	56.19	0.01							1.0
DQRL	SZ	38	354	EP		1319	54.88	0.03							1.0

February 8 2013 Hour: 21:49 41.6 Lat: 33.78N Lon: 35.79E 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	19	319	EP		2149	44.48	-0.07	48						1.0
BHL	BN	19	319	ES		2149	46.77	0.01							1.0
DQRL	SZ	22	248	EP		2149	45.14	0.08							1.0
DQRL	SN	22	248	ES		2149	47.66	0.01							1.0
QRWL	SZ	28	201	EP		2149	45.97	-0.02							1.0
BEYL	BZ	29	291	EP		2149	46.18	-0.06							1.0
RCY	SZ	32	172	EP		2149	46.63	-0.05							1.0
RCY	SN	32	172	ES		2149	50.47	0.00							1.0
HWQ	SZ	57	15	EP		2149	50.86	0.06							1.0

February 9 2013 Hour: 18: 4 48.4 Lat: 33.58N Lon: 36.69E Depth: 28 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

DAMASCUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	80	264	EP		18 5	1.49	0.04	46						1.0
RCY	SN	80	264	ES		18 5	11.07	-0.02							1.0
BHL	BZ	102	291	EP		18 5	4.57	-0.11							1.0
HWQ	SZ	104	319	EP		18 5	4.91	0.04							1.0
DQRL	SZ	105	278	EP		18 5	5.01	0.01							1.0
DQRL	SN	105	278	ES		18 5	17.32	0.04							1.0

February 10 2013 Hour: 16:31 13.1 Lat: 33.81N Lon: 35.74E Depth: 23 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	13	322	EP		1631	17.34	-0.08	61						1.0
BHL	BN	13	322	ES		1631	20.60	-0.02							1.0
DQRL	SZ	20	234	EP		1631	18.08	0.10							1.0
DQRL	SN	20	234	ES		1631	21.60	0.02							1.0
BEYL	BZ	24	287	EP		1631	18.29	-0.02							1.0
RCY	SZ	36	166	EP		1631	19.90	0.01							1.0
HWQ	SZ	55	20	EP		1631	22.52	0.05							1.0

February 11 2013 Hour: 7:59 40.0

Agency: REL Regional

EMSC OT=07:59:40.0 36.23N 36.14E 10Km ML=3.2 TURKEY-SYRIA REG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		8 0	13.85								
BHL	BZ			EP		8 0	19.28								
DQRL	SZ			EP		8 0	22.67								
RCY	SZ			EP		8 0	25.09								
SHBL	BZ			EP		8 0	27.53								

February 11 2013 Hour: 9: 7 38.4

Lat: 33.35N

Lon: 35.59E

Depth: 13

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	14	89	EP		9 7	41.76	0.01							1.0
SHBL	BN	14	89	ES		9 7	44.21	-0.00							1.0
QRWL	SZ	24	20	EP		9 7	42.90	-0.05							1.0
QRWL	SE	24	20	ES		9 7	46.30	0.02							1.0
RCY	SZ	28	53	EP		9 7	43.59	0.02	34						1.0
RCY	SN	28	53	ES		9 7	47.35	-0.01							1.0
DQRL	SZ	40	357	EP		9 7	45.32	0.01							1.0

February 11 2013 Hour: 15:32 15.7

Lat: 34.03N

Lon: 36.65E

Depth: 24

Agency: REL

Local

Magnitudes: 3.2MC REL

Rms: 0.0 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	70	293	EP		1532	27.23	0.00	72						1.0
HWQ	SE	70	293	ES		1532	35.75	-0.00							1.0
BHL	BZ	93	261	EP		1532	30.50	0.00							1.0
RCY	SZ	96	232	EP		1532	30.98	0.03							1.0
RCY	SN	96	232	ES		1532	42.22	-0.01							1.0
DQRL	SZ	106	250	EP		1532	32.38	-0.03							1.0
DQRL	SE	106	250	ES		1532	44.78	0.02							1.0

February 12 2013 Hour: 1:23 56.0

Agency: REL Distant

EMSC OT=01:23:56.0 18.23S 177.94W 533Km ML=5.4 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		142	36.81								
BHL	BZ			EP		142	37.91								
DQRL	SZ			EP		142	38.68								
QRWL	SZ			EP		142	38.68								

February 12 2013 Hour: 20:20 32.0

Agency: REL Regional

EMSC OT=20:20:32.0 37.04N 37.01E 2Km ML=3.6 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		2021	21.16								
BHL	BZ			EP		2021	26.55								
DQRL	SZ			EP		2021	29.42								
QRWL	SZ			EP		2021	31.14								
RCY	SZ			EP		2021	31.22								

February 13 2013 Hour: 11:23 16.2 Lat: 33.33N Lon: 35.58E Depth: 17 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	15	80	EP		1123	19.98	0.00							1.0
SHBL	BN	15	80	ES		1123	22.83	0.03							1.0
QRWL	SZ	26	21	EP		1123	21.07	-0.16							1.0
RCY	SZ	30	51	EP		1123	21.80	0.00	32						1.0
RCY	SN	30	51	ES		1123	25.98	0.01							1.0
DQRL	SZ	42	359	EP		1123	23.55	0.12							1.0

February 14 2013 Hour: 13:13 53.0 Agency: REL Distant

EMSC OT=13:13:53.0 67.62N 142.66E 10Km ML=6.6 NORTHEASTERN SAKHA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1324	31.44								
BHL	BZ			EP		1324	34.38								
BEYL	BZ			EP		1324	34.54								
DQRL	SZ			EP		1324	35.97								
RCY	SZ			EP		1324	36.53								
QRWL	SZ			EP		1324	36.69								
SHBL	BZ			EP		1324	37.80								

February 14 2013 Hour: 14:30 59.6 Lat: 34.41N Lon: 36.63E Depth: 20 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.1 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	64	257	EP		1431	10.11	-0.07	61						1.0
HWQ	SN	64	257	ES		1431	18.02	0.04							1.0
BHL	BZ	106	238	EP		1431	16.27	0.04							0.2
RCY	SZ	125	216	EP		1431	19.16	0.09							1.0
DQRL	SZ	125	232	EP		1431	19.05	0.01							1.0
RCY	SN	125	216	ES		1431	33.40	-0.04							1.0
QRWL	SZ	129	223	EP		1431	19.67	-0.03							1.0

February 15 2013 Hour: 3: 2 24.0 Agency: REL Distant

EMSC OT=03:02:24.0 19.71S 174.45W 80Km ML=5.8 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		322	6.32								

February 15 2013 Hour: 17:42 21.5 Lat: 34.11N Lon: 35.75E Depth: 25 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	25	202	EP		1742	27.10	-0.04	58						1.0
BHL	BN	25	202	ES		1742	31.33	0.00							1.0
HWQ	BZ	26	44	EP		1742	27.27	0.04							1.0
HWQ	BN	26	44	ES		1742	31.47	-0.01							1.0
BEYL	BZ	36	222	EP		1742	28.31	-0.01							1.0
DQRL	SZ	48	201	EP		1742	30.08	0.08							1.0
DQRL	SN	48	201	ES		1742	36.29	-0.01							1.0
QRWL	SZ	63	186	EP		1742	32.02	-0.01							1.0
QRWL	SN	63	186	ES		1742	39.84	0.01							1.0
RCY	SZ	69	174	EP		1742	32.78	-0.10							1.0
RCY	SN	69	174	ES		1742	41.33	0.02							1.0

February 16 2013 Hour: 23:37 53.0 Lat: 34.11N Lon: 35.75E Depth: 25 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	25	202	EP		2337	58.56	-0.01	60						1.0
BHL	BN	25	202	ES		2338	2.66	-0.01							1.0
HWQ	SZ	26	44	EP		2337	58.73	-0.01							1.0
HWQ	SN	26	44	ES		2338	2.97	0.01							1.0

BEYL	BZ	36	222	EP		2337	59.81	0.04									1.0
DQRL	SZ	48	201	EP		2338	1.50	0.05									1.0
DQRL	SN	48	201	ES		2338	7.63	-0.05									1.0
QRWL	SZ	63	186	EP		2338	3.48	-0.01									1.0
QRWL	SN	63	186	ES		2338	11.26	0.03									1.0
RCY	SZ	68	174	EP		2338	4.32	-0.02									1.0
RCY	SN	68	174	ES		2338	12.73	0.02									1.0

February 17 2013 Hour: 3:12 54.0

Agency: REL Regional

EMSC OT=03:12:54.0 37.32N 20.72E 3Km ML=4.9 IONIAN SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		315	51.92								
HWQ	SZ			EP		315	54.32								
RCY	SZ			EP		315	54.66								

February 17 2013 Hour: 5:42 5.0

Agency: REL Regional

EMSC OT=05:42:05.0 36.60N 21.53E 15Km ML=4.8 SOUTHERN GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		544	52.10								
RCY	SZ			EP		544	52.84								
DQRL	SZ			EP		544	53.59								

February 18 2013 Hour: 12:19 15.0

Agency: REL Distant

EMSC OT=12:19:15.0 30.68S 178.07W 10Km ML=5.9 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		1239	8.31								
BHL	BZ			EP		1239	8.46								
RCY	SZ			EP		1239	8.76								

February 18 2013 Hour: 16:32 42.0

Agency: REL Distant

EMSC OT=16:32:42.0 30.82S 178.10W 10Km ML=5.6 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1652	34.64								
RCY	SZ			EP		1652	35.63								
BHL	BZ			EP		1652	35.94								
QRWL	SZ			EP		1652	36.17								

February 19 2013 Hour: 12:34 48.0

Agency: REL Regional

EMSC OT=12:34:48.0 34.35N 28.25E 10Km ML=4.3 EASTERN MED SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1236	21.06								
RCY	SZ			EP		1236	20.66								

February 19 2013 Hour: 22:29 2.0

Agency: REL Distant

EMSC OT=22:29:02.0 17.39S 173.46W 49Km ML=5.8 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BE			EP		2248	41.47								
BHL	BZ			EP		2248	43.41								

February 20 2013 Hour: 13:59 1.1 Lat: 33.51N Lon: 35.65E 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	29	EP		1359	1.95	-0.03	28						1.0
QRWL	SE	5	29	ES		1359	2.63	-0.01							1.0
RCY	SZ	17	93	EP		1359	3.88	0.05							1.0
SHBL	BZ	19	154	EP		1359	4.20	-0.00							1.0
SHBL	BN	19	154	ES		1359	6.49	-0.02							1.0
DQRL	SZ	24	341	EP		1359	4.92	0.02							1.0

February 21 2013 Hour: 8:16 30.6 Lat: 33.76N Lon: 35.85E 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
BHL	BZ	24	310	EP		816	34.47	-0.02							1.0
BHL	BE	24	310	ES		816	37.37	-0.01							1.0
DQRL	SZ	27	256	EP		816	34.95	0.01							1.0
QRWL	SZ	29	214	EP		816	35.26	0.05							1.0
QRWL	SE	29	214	ES		816	38.63	-0.01							1.0
RCY	SZ	30	183	EP		816	35.38	0.01	36						1.0
RCY	SE	30	183	ES		816	38.86	-0.05							1.0
SHBL	BZ	47	193	EP		816	38.21	0.02							1.0
HWQ	SZ	58	9	EP		816	39.89	-0.01							1.0

February 21 2013 Hour: 10:18 51.0 Agency: REL Regional

EMSC OT=10:18:51.0 37.41N 26.92E 11Km ML=4.5 DODECANESE ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1020	46.32								
RCY	SZ			EP		1020	49.55								

February 21 2013 Hour: 13:13 13.6 Lat: 33.35N Lon: 35.59E 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
SHBL	BZ	14	91	EP		1313	16.85	0.01							1.0
SHBL	BN	14	91	ES		1313	19.27	0.00							1.0
QRWL	SZ	23	21	EP		1313	17.90	-0.06							1.0
QRWL	SN	23	21	ES		1313	21.23	0.01							1.0
RCY	SZ	28	54	EP		1313	18.63	0.01	40						1.0
DQRL	SZ	39	357	EP		1313	20.35	0.03							1.0

February 21 2013 Hour: 14:13 1.1 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	20	EP		1413	1.74	-0.09	27						1.0
QRWL	SE	5	20	ES		1413	2.42	0.02							1.0
RCY	SZ	16	94	EP		1413	3.67	0.04							1.0
SHBL	BZ	19	157	EP		1413	4.15	0.01							1.0
SHBL	BN	19	157	ES		1413	6.41	-0.02							1.0
DQRL	SZ	24	338	EP		1413	4.91	0.04							1.0

February 21 2013 Hour: 15:14 26.1 Lat: 33.47N Lon: 35.67E Depth: 7 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	5	EP		1514	28.08	-0.00							1.0
QRWL	SE	9	5	ES		1514	29.52	0.00							1.0
SHBL	BZ	15	154	EP		1514	28.88	0.02							1.0
SHBL	BN	15	154	ES		1514	30.86	-0.01							1.0
RCY	SZ	15	77	EP		1514	28.97	0.00	32						1.0
DQRL	SZ	28	340	EP		1514	30.80	-0.08							0.2

February 21 2013 Hour: 16:29 9.0 Lat: 33.81N Lon: 35.74E Depth: 23 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	12	323	EP		1629	13.27	-0.01	37						1.0
DQRL	SZ	20	232	EP		1629	13.91	0.03							1.0
DQRL	SN	20	232	ES		1629	17.49	0.00							1.0
QRWL	SZ	30	189	EP		1629	14.97	-0.05							1.0
RCY	SZ	37	165	EP		1629	15.91	0.03							1.0
RCY	SE	37	165	ES		1629	20.97	-0.00							1.0

HWQ SZ 55 21 EP 1629 18.33 0.00 0.2

February 22 2013 Hour: 10:33 50.0 Lat: 33.79N Lon: 35.76E Depth: 11 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	321	EP		1033	53.25	0.01	45						1.0
DQRL	SZ	20	242	EP		1033	53.80	-0.00							1.0
DQRL	SN	20	242	ES		1033	56.60	-0.01							1.0
RCY	SZ	34	168	EP		1033	55.79	0.01							1.0
RCY	SE	34	168	ES		1034	0.05	-0.00							1.0
HWQ	SZ	57	18	EP		1033	59.33	-0.01							1.0

February 22 2013 Hour: 11:40 26.8 Lat: 33.45N Lon: 35.63E Depth: 0 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	12	24	EP		1140	28.71	-0.04	35						1.0
QRWL	SN	12	24	ES		1140	30.18	-0.01							1.0
SHBL	BZ	16	136	EP		1140	29.30	-0.02							1.0
SHBL	BN	16	136	ES		1140	31.19	0.01							1.0
RCY	SZ	20	75	EP		1140	30.07	0.03							1.0
RCY	SN	20	75	ES		1140	32.42	-0.00							1.0
DQRL	SZ	29	349	EP		1140	31.52	0.03							1.0

February 22 2013 Hour: 13:31 38.9 Lat: 33.33N Lon: 35.59E Depth: 18 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	15	83	EP		1331	42.77	0.00							1.0
SHBL	BN	15	83	ES		1331	45.64	0.01							1.0
QRWL	SZ	25	20	EP		1331	43.88	-0.03							1.0
RCY	SZ	29	52	EP		1331	44.46	-0.00	41						1.0
RCY	SE	29	52	ES		1331	48.58	0.00							1.0
DQRL	SZ	41	358	EP		1331	46.10	0.02							1.0

February 23 2013 Hour: 3:54 17.7 Lat: 33.87N Lon: 35.82E Depth: 6 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	286	EP		354	20.44	-0.07	48						1.0
BHL	BN	16	286	ES		354	22.56	-0.05							1.0
DQRL	SZ	29	233	EP		354	22.63	0.11							1.0
DQRL	SN	29	233	ES		354	26.21	0.10							1.0
QRWL	SZ	38	200	EP		354	23.69	-0.15							1.0
RCY	SZ	41	178	EP		354	24.47	0.07							1.0
RCY	SN	41	178	ES		354	29.36	-0.02							1.0
HWQ	SZ	47	14	EP		354	25.32	-0.07							1.0
HWQ	SN	47	14	ES		354	31.19	0.09							1.0

February 24 2013 Hour: 6:53 27.9 Lat: 33.80N Lon: 35.79E Depth: 16 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	314	EP		653	31.73	0.02	32						1.0
DQRL	SZ	23	243	EP		653	32.41	0.03							1.0
DQRL	SN	23	243	ES		653	35.69	-0.03							1.0
QRWL	SZ	30	199	EP		653	33.28	-0.01							1.0
QRWL	SN	30	199	ES		653	37.30	0.00							1.0
HWQ	SZ	55	15	EP		653	36.99	-0.02							1.0

February 24 2013 Hour: 12:30 21.8 Lat: 33.47N Lon: 35.68E Depth: 0 Agency: REL Local
Magnitudes: 3.1MC 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	9	1	EP		1230	23.09	-0.07							1.0
QRWL	SE	9	1	ES		1230	24.23	0.04							1.0
RCY	SZ	15	79	EP		1230	24.13	-0.02							1.0
SHBL	BZ	15	156	EP		1230	24.19	0.03							1.0
SHBL	BN	15	156	ES		1230	25.93	-0.00							1.0
DQRL	SZ	28	339	EP		1230	26.27	-0.02							1.0
DQRL	SE	28	339	ES		1230	29.63	-0.01							1.0
BHL	BZ	48	357	EP		1230	29.60	0.06	68						1.0
HWQ	SZ	93	15	EP		1230	36.76	0.01							1.0

February 24 2013 Hour: 12:43 24.4 Lat: 33.72N Lon: 36.81E Depth: 15 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	94	255	EP		1243	39.09	-0.22	69						1.0
RCY	SE	94	255	ES		1243	50.42	0.11							1.0
HWQ	SZ	101	308	EP		1243	40.48	0.15							1.0
HWQ	SN	101	308	ES		1243	51.96	-0.12							1.0
BHL	BZ	109	281	EP		1243	41.67	0.16							1.0
DQRL	SZ	115	269	EP		1243	42.33	-0.07							1.0

February 24 2013 Hour: 20:54 4.0 Agency: REL Distant
EMSC OT=20:54:04.0 32.37S 178.00W 10Km ML=5.5 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		2113	59.44								
QRWL	SZ			EP		2113	59.25								
BHL	BZ			EP		2113	59.66								
DQRL	SZ			EP		2114	0.08								

February 25 2013 Hour: 7:18 13.4 Lat: 33.16N Lon: 35.62E Depth: 15 Agency: REL Local
Magnitudes: 2.6MC 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	24	28	EP		718	18.02	-0.01							1.0
SHBL	BN	24	28	ES		718	21.48	0.01							1.0
RCY	SZ	42	28	EP		718	20.63	-0.00	34						1.0
RCY	SE	42	28	ES		718	26.00	0.00							1.0
QRWL	SZ	43	7	EP		718	20.78	0.02							1.0
QRWL	SE	43	7	ES		718	26.21	-0.01							1.0

February 25 2013 Hour: 7:23 56.0 Agency: REL Distant
EMSC OT=07:23:56.0 36.90N 139.24E 10Km ML=5.7 EASTERN HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		736	7.63								
BHL	BZ			EP		736	4.48								

February 25 2013 Hour: 11:50 32.0 Lat: 33.45N Lon: 35.54E Depth: 16 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	17	50	EP		1150	35.88	-0.01	32						1.0
SHBL	BZ	22	121	EP		1150	36.53	0.01							1.0
SHBL	BN	22	121	ES		1150	39.87	-0.00							1.0
RCY	SZ	28	79	EP		1150	37.27	-0.01							1.0
RCY	SE	28	79	ES		1150	41.19	0.01							1.0
DQRL	SZ	29	6	EP		1150	37.39	0.07							0.2

February 25 2013 Hour: 13:137.2 Lat: 33.91N Lon: 35.81E 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	15	268	EP		13	1	39.72-0.03	38						1.0
DQRL	SZ	32	225	EP		13	1	42.43	0.02						1.0
DQRL	SN	32	225	ES		13	1	46.29	0.02						1.0
HWQ	SZ	43	16	EP		13	1	44.18	0.02						1.0
RCY	SZ	46	178	EP		13	1	44.56-0.06							1.0
RCY	SE	46	178	ES		13	1	50.14	0.03						1.0

February 25 2013 Hour: 15:15 4.4 Lat: 33.78N Lon: 35.76E Depth: 5 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	324	EP		1515	7.20-0.02	24							1.0
DQRL	SZ	20	243	EP		1515	7.69-0.01								1.0
DQRL	SE	20	243	ES		1515	10.15	0.02							1.0
RCY	SZ	33	167	EP		1515	9.79-0.01								1.0
RCY	SN	33	167	ES		1515	13.80	0.00							1.0
HWQ	SZ	57	18	EP		1515	13.74	0.02							1.0

February 25 2013 Hour: 17:53 37.5 Lat: 34.02N Lon: 36.15E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC 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	BZ	34	327	EP		1753	42.96	0.03							1.0
HWQ	BE	34	327	ES		1753	46.96-0.01								1.0
BHL	BZ	48	254	EP		1753	45.10-0.05	35							1.0
BHL	BE	48	254	ES		1753	50.84	0.02							1.0
DQRL	SZ	64	237	EP		1753	47.81-0.00								1.0
RCY	SZ	65	206	EP		1753	47.98-0.03								1.0
RCY	SE	65	206	ES		1753	55.80	0.00							1.0
QRWL	SZ	68	219	EP		1753	48.52	0.04							1.0

February 26 2013 Hour: 15:8 58.8 Lat: 34.67N Lon: 36.26E Depth: 3 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.0 secs

AKKAR

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	53	214	EP		15	9	7.26-0.00	63						1.0
HWQ	SE	53	214	ES		15	9	13.57	0.01						1.0
BHL	BZ	102	214	EP		15	9	15.20-0.02							1.0
DQRL	SZ	125	211	EP		15	9	18.79	0.02						1.0
DQRL	SE	125	211	ES		15	9	33.56-0.01							1.0
RCY	SZ	136	197	EP		15	9	20.42-0.06							1.0
SHBL	BZ	154	198	EP		15	9	23.22	0.06						1.0

February 26 2013 Hour: 20:8 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		20	9	11.28							
DQRL	SZ			EP		20	9	21.34							

February 27 2013 Hour: 0:7 17.8 Lat: 33.78N Lon: 35.79E 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	19	317	EP		0	7	20.78-0.11	41						1.0
BHL	BN	19	317	ES		0	7	23.22	0.05						1.0
DQRL	SZ	22	249	EP		0	7	21.38-0.02							1.0
QRWL	SZ	28	202	EP		0	7	22.30	0.05						1.0
QRWL	SN	28	202	ES		0	7	25.53-0.01							1.0
RCY	SZ	31	173	EP		0	7	22.80-0.07							1.0
HWQ	SZ	57	14	EP		0	7	27.07	0.04						1.0

February 27 2013 Hour: 12:59 26.5 Lat: 33.45N Lon: 35.58E Depth: 14 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

SAIDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	15	42	EP		1259	29.97	-0.00							1.0
QRWL	SE	15	42	ES		1259	32.51	0.00							1.0
SHBL	BZ	19	126	EP		1259	30.57	0.00							1.0
SHBL	BN	19	126	ES		1259	33.55	-0.00							1.0
RCY	SZ	25	78	EP		1259	31.27	0.00	23						1.0
DQRL	SZ	28	359	EP		1259	31.74	-0.00							0.2

February 27 2013 Hour: 13:27 25.7 Lat: 33.79N Lon: 35.76E 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	16	324	EP		1327	28.44	0.03	31						1.0
BHL	BE	16	324	ES		1327	30.36	-0.02							1.0
DQRL	SZ	19	243	EP		1327	28.95	0.01							1.0
RCY	SZ	33	167	EP		1327	31.03	-0.07							1.0
RCY	SE	33	167	ES		1327	35.11	0.04							1.0
HWQ	SZ	57	18	EP		1327	35.02	0.02							1.0

February 27 2013 Hour: 16:36 51.8 Lat: 33.81N Lon: 35.77E Depth: 17 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	314	EP		1636	55.55	-0.02	36						1.0
BHL	BN	15	314	ES		1636	58.36	0.01							1.0
DQRL	SZ	22	238	EP		1636	56.34	0.01							1.0
RCY	SZ	35	170	EP		1636	58.14	-0.01							1.0
RCY	SE	35	170	ES		1637	2.85	0.01							1.0
HWQ	SZ	54	17	EP		1637	0.86	0.01							1.0

February 27 2013 Hour: 18:1 21.5 Lat: 33.81N Lon: 35.76E Depth: 14 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	318	EP		18 1	25.02	0.02	36						1.0
DQRL	SZ	21	238	EP		18 1	25.77	0.04							1.0
DQRL	SN	21	238	ES		18 1	28.81	-0.03							1.0
RCY	SZ	35	169	EP		18 1	27.70	0.01							1.0
RCY	SE	35	169	ES		18 1	32.25	-0.01							1.0
HWQ	SZ	55	18	EP		18 1	30.62	-0.02							1.0

February 27 2013 Hour: 22: 5 58.0 Agency: REL Regional
EMSC OT=22:05:58.0 36.57N 26.47E 161Km ML=4.3 DODECANESE ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		22 7	46.94								
DQRL	SZ			EP		22 7	47.68								
HWQ	BZ			EP		22 7	49.72								
QRWL	SZ			EP		22 7	50.37								
RCY	SZ			EP		22 7	52.66								

February 28 2013 Hour: 14: 5 52.0 Agency: REL Distant
EMSC OT=14:05:52.0 50.92N 157.36E 60Km ML=6.8 KURIL ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1417	59.10								
BHL	BZ			EP		1418	1.72								
DQRL	SZ			EP		1418	2.92								
RCY	SZ			EP		1418	3.20								
QRWL	SZ			EP		1418	3.41								
SHBL	BZ			EP		1418	3.69								

February 28 2013 Hour: 15:50 18.1 Lat: 33.46N Lon: 35.68E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	359	EP		1550	19.50	-0.07							1.0
QRWL	SN	9	359	ES		1550	20.64	-0.05							1.0
RCY	SZ	15	75	EP		1550	20.43	0.01	38						1.0
RCY	SE	15	75	ES		1550	22.20	0.03							1.0
DQRL	SZ	29	339	EP		1550	22.72	0.01							1.0
DQRL	SN	29	339	ES		1550	26.24	0.09							1.0
BHL	BZ	49	357	EP		1550	25.92	-0.03							1.0
HWQ	SZ	94	15	EP		1550	33.16	0.01							1.0

Epicentral Map of Lebanon

FEBRUARY 2013

