

Republic of Lebanon  
National Council for Scientific Research

# Provisional Seismological Bulletin

from the

## NATIONAL SEISMIC NETWORK

March

2010

Prepared by  
The National Centre for Geophysical Research  
Bhannes

*P.o.b. : 165432  
Ashrafyeh Beirut 1100-2040*

*Tel : +9614-981885  
Fax : +9614-981886  
Email : [geophys@cnrs.edu.lb](mailto:geophys@cnrs.edu.lb)*

## 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

## 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.

**March 1 2010 Hour: 12: 5 34.3** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ EP 12 6 12.86  
 FKH SZ EP 12 5 58.85

**March 1 2010 Hour: 12:36 25.2** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1237 5.97  
 FKH SZ EP 1237 1.82

**March 1 2010 Hour: 13:53 1.3** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 1353 34.10  
 HWQ BZ EP 1353 36.22

**March 1 2010 Hour: 14:51 1.3** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 1452 11.41  
 HWQ BZ EP 1452 18.78

**March 1 2010 Hour: 15: 7 38.0** Agency: REL Regional  
**EMSC OT=15:06:55.2 36.06N 31.32E 15Km ML=3.5 WESTERN TURKEY**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 15 8 0.39  
 RCY SZ EP 15 8 4.76

**March 1 2010 Hour: 22:18 29.6 Lat: 33.82N Lon: 35.87E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.1MC REL Rms: 0.0 secs**  
**CENTRAL BEKAA**  
**Earthquake was felt**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	22	294	EP		2218	33.07	-0.06	71						1.0
BHL	BE	22	294	ES	*	2218	35.74	-0.03							0.0
BEYL	BZ	36	279	EP		2218	35.36	0.07							1.0
RCY	SZ	36	185	EP		2218	35.43	-0.03	72						1.0
RCY	SE	36	185	ES		2218	39.82	0.01							1.0
HWQ	BZ	51	8	EP		2218	37.75	-0.03							1.0
HWQ	BE	51	8	ES		2218	43.88	0.03							1.0
MATL	SZ	63	234	EP		2218	39.54	-0.12							0.2
NAQL	SZ	104	221	EP		2218	46.36	0.05							1.0
NAQL	SE	104	221	ES		2218	58.68	-0.01							1.0

**March 2 2010 Hour: 10:10 0.2** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1010 42.18  
 FKH SZ EP 1010 34.85

**March 2 2010 Hour: 11:38 11.5 Lat: 34.39N Lon: 36.67E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.1MC REL Rms: 0.0 secs**  
**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	29	235	EP		1138	16.13	-0.08	66						1.0
FKH	SN	29	235	ES		1138	19.70	0.02							1.0
HWQ	BZ	68	259	EP		1138	22.47	0.01							1.0
BHL	BZ	108	240	EP		1138	29.01	0.02							1.0
RCY	SZ	126	218	EP		1138	31.87	0.04							1.0
RCY	SN	126	218	ES		1138	46.84	-0.01							1.0

March 2 2010 Hour: 19:46 1.5 Agency: REL Regional

EMSC OT=19:45:29.7 34.27N 32.59E 13Km ML=3.7 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1946	17.11								
BHL	BZ			EP		1946	14.06								

March 2 2010 Hour: 22:26 58.4 Lat: 34.30N Lon: 36.44E Depth: 0 Agency: REL Local  
Magnitudes: 2.3MC REL Rms: 0.1 secs

HERMEL BAALBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	7	206	EP		2226	59.47-0.02		23						1.0
FKH	SN	7	206	ES		2227	0.30-0.02								1.0
HWQ	BZ	46	267	EP		2227	5.72-0.05								1.0
HWQ	BN	46	267	ES		2227	11.23-0.01								1.0
BHL	BZ	85	239	EP		2227	12.19 0.10								1.0

March 3 2010 Hour: 10:40 43.1 Lat: 34.49N Lon: 36.71E Depth: 3 Agency: REL Local  
Magnitudes: 2.7MC REL Rms: 0.1 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	74	252	EP		1040	54.98-0.10		37						1.0
HWQ	BN	74	252	ES		1041	3.96 0.02								1.0
BHL	BZ	117	237	EP		1041	2.13 0.13								1.0
RCY	SZ	137	217	EP		1041	4.88-0.02								1.0
RCY	SN	137	217	ES		1041	20.99-0.03								1.0

March 3 2010 Hour: 11:31 10.4 Agency: REL Regional

EMSC OT=11:30:48.6 35.44N 32.42E 23Km ML=3.2 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1131	39.16								
HWQ	BZ			EP		1131	35.75								

March 3 2010 Hour: 13:4 23.1 Lat: 33.75N Lon: 35.63E Depth: 8 Agency: REL Local  
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	8	EP		13 4	26.22 0.00								1.0
BHL	BN	17	8	ES		13 4	28.53-0.01								1.0
RCY	SZ	34	145	EP		13 4	28.79 0.00		39						1.0
RCY	SN	34	145	ES		13 4	33.01 0.00								1.0
HWQ	BZ	66	27	EP		13 4	33.75 0.00								1.0

March 3 2010 Hour: 20:29 45.8 Agency: REL Regional

EMSC OT=20:33:16.9 34.23N 32.79E 2Km ML=3.5 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2034	1.46								
RCY	SZ			EP		2034	3.73								
HWQ	BZ			EP		2034	3.73								

March 4 2010 Hour: 0:27 9.8 Agency: REL Distant

EMSC OT=00:18:52.0 22.92N 120.84E 20Km Mw=6.4 TAIWAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		030	25.74								
BHL	BZ			EP		030	32.59								
HWQ	BZ			EP		030	31.01								

March 4 2010 Hour: 14:20 53.6 Agency: REL Distant

EMSC OT=14:02:30.7 13.61S 167.19E 200Km Mw=6.4 VANUATU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1421	19.53								
RCY	SZ			EP		1421	21.15								

March 4 2010 Hour: 20:50 24.7 Agency: REL Regional

EMSC OT=20:57:52.6 34.27N 32.74E 2Km ML=3.5 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ			EP		2058	33.98								
HWQ	BZ			EP		2058	37.74								
RCY	SZ			EP		2058	38.18								

March 5 2010 Hour: 1:27 12.3 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		127	45.97								
FKH	SZ			EP		127	41.39								

March 5 2010 Hour: 15: 3 10.5 Lat: 33.76N Lon: 35.62E Depth: 23 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	12	EP		15 3	15.08	-0.03							1.0
BHL	BN	16	12	ES		15 3	18.51	0.02							1.0
RCY	SZ	36	145	EP		15 3	17.31	0.02	42						1.0
RCY	SN	36	145	ES		15 3	22.27	-0.01							1.0
MATL	SZ	40	222	EP		15 3	17.80	0.03							0.2
HWQ	BZ	65	28	EP		15 3	21.28	0.00							1.0

March 5 2010 Hour: 16: 7 21.9 Agency: REL Distant

EMSC OT=16:06:57.9 03.90S 100.88E 10Km Mw=6.6 MENTAWAI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1618	20.73								
HWQ	BZ			EP		1618	21.40								
BHL	BZ			EP		1618	22.24								

March 6 2010 Hour: 8:46 2.9 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		847	37.98								
RCY	SZ			EP		847	22.68								

March 6 2010 Hour: 11:30 2.3 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1131	8.84								
RCY	SZ			EP		1130	55.82								

March 6 2010 Hour: 11:35 0.5 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1136	19.00								
FKH	SZ			EP		1136	12.73								

March 7 2010 Hour: 3:50 37.2 Lat: 33.97N Lon: 35.85E Depth: 0 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	20	249	EP		350	40.38	0.02	34						1.0
BHL	BN	20	249	ES		350	42.71	-0.01							1.0
HWQ	BZ	35	14	EP		350	42.86	-0.01							1.0
RCY	SZ	53	182	EP		350	45.65	0.01							1.0
RCY	SN	53	182	ES		350	51.90	-0.01							1.0

March 7 2010 Hour: 7:15 59.5 Agency: REL Distant

EMSC OT=07:05:25.0 16.03S 115.33W 10Km Mw=6.3 S-E PACIFIC RISE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		725	9.39								
BHL	BZ			EP		725	10.10								
FKH	SZ			EP		725	11.56								

March 7 2010 Hour: 10:21 40.4 Lat: 34.39N Lon: 36.85E Depth: 4 Agency: REL Local  
Magnitudes: 3.0MC REL Rms: 0.1 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	43	249	EP		1021	47.33	-0.08	58						1.0
FKH	SN	43	249	ES		1021	52.65	0.05							1.0
HWQ	BZ	84	262	EP		1021	54.01	0.08							1.0
HWQ	BN	84	262	ES		1022	3.89	-0.05							1.0
BHL	BZ	122	244	EP		1021	60.00	0.00							1.0

March 7 2010 Hour: 10:23 55.5 Lat: 33.50N Lon: 35.77E Depth: 17 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
RCY	SZ	6	98	EP		1023	58.60	-0.01	31						1.0
RCY	SN	6	98	ES		1024	0.93	0.01							1.0
BHL	BZ	46	346	EP		1024	3.27	0.01							1.0
BHL	BN	46	346	ES		1024	9.00	-0.01							1.0
HWQ	BZ	87	11	EP		1024	9.35	0.00							1.0

March 7 2010 Hour: 11:0 58.3 Lat: 33.58N Lon: 36.40E Depth:113 Agency: REL Local  
Magnitudes: 2.8MC 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	53	261	EP		11 1	14.67	-0.06	40						1.0
RCY	SE	53	261	ES		11 1	26.92	0.03							1.0
BHL	BZ	78	298	EP		11 1	16.26	0.00							1.0
HWQ	BZ	88	332	EP		11 1	17.12	0.06							1.0
HWQ	BE	88	332	ES		11 1	30.92	-0.03							1.0

March 7 2010 Hour: 14:58 0.8

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1458	48.12								
HWQ	BZ			EP		1458	51.41								

March 7 2010 Hour: 23:28 13.9

Agency: REL Regional

EMSC OT=23:28:57.3 36.67N 36.19E 2Km ML=3.9 TURKEY-SYRIA REG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2329	33.08								
HWQ	BZ			EP		2329	33.90								
BHL	BZ			EP		2329	39.28								
RCY	SZ			EP		2329	44.72								

March 8 2010 Hour: 1:12 8.1 Lat: 33.12N Lon: 35.05E Depth: 11 Agency: REL Local  
Magnitudes: 2.8MC REL Rms: 0.1 secs

OFFSHORE SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	8	96	EP		112	10.35	-0.01	43						1.0
NAQL	SN	8	96	ES		112	12.05	0.00							1.0
RCY	SZ	84	60	EP		112	21.58	0.01							1.0
RCY	SE	84	60	ES		112	31.56	0.00							1.0
BHL	BZ	103	33	EP		112	24.28	-0.09							1.0
HWQ	BZ	152	33	EP		112	31.74	0.09							1.0

March 8 2010 Hour: 2:33 50.6

Agency: REL Regional

EMSC OT=02:32:35.0 38.84N 40.00E 10Km Mw=6.0 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		233	54.95								
HWQ	BZ			EP		233	57.63								
BHL	BZ			EP		234	3.87								
RCY	SZ			EP		234	7.86								
MATL	SZ			EP		234	12.14								
NAQL	SZ			EP		234	16.49								



March 8 2010 Hour: 3:23 18.3 Agency: REL Regional

EMSC OT=03:20:26.5 38.82N 40.20E 2Km ML=4.2 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		321	50.43								
BHL	BZ			EP		321	56.89								

March 8 2010 Hour: 7:48 57.9 Agency: REL Regional

EMSC OT=07:47:40.7 38.73N 40.20E 2Km mb=5.0 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		749	1.19								
HWQ	BZ			EP		749	3.53								
BHL	BZ			EP		749	9.73								
RCY	SZ			EP		749	13.47								

March 8 2010 Hour: 8:12 39.7 Agency: REL Regional

EMSC OT=08:11:22.8 38.74N 40.09E 2Km ML=4.2 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		812	43.05								
HWQ	BZ			EP		812	46.19								
BHL	BZ			EP		812	52.52								
RCY	SZ			EP		812	56.23								

March 8 2010 Hour: 9: 2 5.4 Agency: REL Regional

EMSC OT=09:00:50.2 38.74N 40.13E 15Km ML=4.8 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		9 2	11.86								
BHL	BZ			EP		9 2	18.14								
RCY	SZ			EP		9 2	21.81								

March 8 2010 Hour: 10:15 43.6 Agency: REL Regional

EMSC OT=10:14:25.6 38.77N 40.19E 2Km mb=4.9 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1015	47.60								
HWQ	BZ			EP		1015	50.29								
BHL	BZ			EP		1015	56.94								
RCY	SZ			EP		1016	1.00								

March 8 2010 Hour: 11:13 31.0 Agency: REL Regional

EMSC OT=11:12:13.3 38.77N 40.14E 2Km mb=4.9 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1113	33.97								
HWQ	BZ			EP		1113	36.09								
BHL	BZ			EP		1113	42.46								
RCY	SZ			EP		1113	46.06								

March 8 2010 Hour: 14:19 0.3 Agency: REL Regional

EMSC OT=14:17:35.9 38.73N 40.09E 2Km ML=4.2 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1419	4.90								
HWQ	BZ			EP		1419	0.86								

March 8 2010 Hour: 15: 6 10.2 Agency: REL Regional

EMSC OT=15:04:53.9 38.71N 40.16E 2Km mb=4.6 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		15 6	13.29								
HWQ	BZ			EP		15 6	16.90								
BHL	BZ			EP		15 6	23.03								
RCY	SZ			EP		15 6	26.82								

**March 9 2010 Hour: 0:10 40.6 Agency: REL Regional**  
**EMSC OT=00:09:20.1 38.72N 40.03E 2Km ML=4.0 EASTERN TURKEY**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 010 43.71  
 BHL BZ EP 010 50.08  
 RCY SZ EP 010 55.04

**March 9 2010 Hour: 0:50 51.3 Lat: 33.52N Lon: 34.82E Depth: 31 Agency: REL Local**  
**Magnitudes: 3.8MC REL Rms: 0.6 secs**  
**OFFSHORE SOUTH LEBANON**

**Earthquake was felt**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	53	146	EP		051	0.25-0.48								1.0
BEYL	BZ	74	58	EP		051	4.28 0.83								1.0
BHL	BZ	88	61	EP		051	5.46-0.11	165							1.0
BHL	BE	88	61	ES		051	15.78-0.37								1.0
RCY	SZ	94	91	EP		051	6.76 0.41								1.0
HWQ	BZ	134	51	EP		051	11.80 0.54								1.0
HWQ	BE	134	51	ES		051	25.06-0.99								1.0
FKH	SZ	168	61	EP		051	17.05 1.61								1.0

**March 9 2010 Hour: 1:7 1.3 Agency: REL Local**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 NAQL SZ EP 1 8 5.10  
 RCY SZ EP 1 8 11.30

**March 9 2010 Hour: 6:16 0.4 Agency: REL Regional**  
**EMSC OT=06:14:58.8 38.70N 40.13E 5Km ML=4.3 EASTERN TURKEY**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ EP 616 28.87  
 HWQ BZ EP 616 22.02

**March 9 2010 Hour: 7:22 0.4 Agency: REL Regional**  
**EMSC OT=07:21:25.2 38.85N 40.22E 2Km ML=4.3 EASTERN TURKEY**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ EP 722 58.22  
 HWQ BZ EP 722 44.66

**March 9 2010 Hour: 7:34 19.1 Agency: REL Regional**  
**EMSC OT=07:34:36.8 38.74N 40.14E 2Km ML=4.0 EASTERN TURKEY**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 736 0.09

**March 9 2010 Hour: 16:16 27.3 Agency: REL Local**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1616 50.28  
 FKH SZ EP 1616 47.72

**March 10 2010 Hour: 2:23 48.3 Lat: 33.48N Lon: 34.74E Depth: 26 Agency: REL Local**  
**Magnitudes: 2.7MC REL Rms: 0.1 secs**  
**OFFSHORE SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	54	137	EP		223	57.66-0.01	39							1.0
NAQL	SN	54	137	ES		224	4.59 0.01								1.0
BHL	BZ	97	60	EP		224	3.98 0.21								0.2
RCY	SZ	102	88	EP		224	4.45-0.02								1.0
RCY	SN	102	88	ES		224	16.40 0.00								1.0
HWQ	BZ	143	51	EP		224	9.85 0.09								0.2

**March 10 2010 Hour: 9:142.9 Lat: 34.43N Lon: 36.63E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.0 secs**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	29	225	EP		9 1	47.52	-0.04	59						1.0
FKH	SN	29	225	ES		9 1	51.05	0.00							1.0
HWQ	BZ	65	255	EP		9 1	53.42	0.01							1.0
HWQ	BN	65	255	ES		9 2	1.22	0.00							1.0
RCY	SZ	127	216	EP		9 2	3.41	0.03							1.0

**March 10 2010 Hour: 12:27 54.5 Lat: 33.78N Lon: 35.73E 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	15	334	EP		1227	57.57	0.00	32						1.0
RCY	SZ	33	162	EP		1228	0.20	0.00							1.0
RCY	SN	33	162	ES		1228	4.40	0.00							1.0
HWQ	BZ	59	20	EP		1228	4.18	0.00							1.0
HWQ	BN	59	20	ES		1228	11.31	0.00							1.0

**March 10 2010 Hour: 16:8 2.5 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		16 9	7.35								
FKH	SZ			EP		16 9	4.72								

**March 11 2010 Hour: 12:12 0.5 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1212	20.27								
RCY	SZ			EP		1212	19.85								

**March 12 2010 Hour: 1:52 43.1 Agency: REL Regional**  
**EMSC OT=01:54:00.7 36.40N 23.43E 60Km ML=4.3 SOUTHERN GREECE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		156	22.56								
HWQ	BZ			EP		156	24.64								
RCY	SZ			EP		156	25.76								

**March 12 2010 Hour: 14:48 55.9 Lat: 33.86N Lon: 36.58E Depth: 2 Agency: REL Local**  
**Magnitudes: 3.5MC REL Rms: 0.0 secs**

**DAMASCUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	45	340	EP		1449	3.22	-0.01							1.0
FKH	SE	45	340	ES		1449	8.67	0.02							1.0
HWQ	BZ	75	308	EP		1449	7.90	-0.03							1.0
HWQ	BN	75	308	ES		1449	16.85	0.02							1.0
RCY	SZ	80	240	EP		1449	8.88	0.05	100						1.0
BHL	BZ	86	273	EP		1449	9.70	-0.05	115						1.0
BEYL	BZ	101	271	EP		1449	11.98	-0.15							0.2
NAQL	SZ	157	239	EP		1449	20.73	0.01							1.0

**March 12 2010 Hour: 22:52 4.2 Lat: 34.35N Lon: 36.32E Depth: 15 Agency: REL Regional**  
**EMSC OT=22:50:46.0 38.78N 40.07E 2Km ML=3.8 EASTERN TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2252	7.57								
HWQ	BZ			EP		2252	10.41								
BHL	BZ			EP		2252	16.76								

**March 12 2010 Hour: 23:19 55.4 Agency: REL Distant**  
**EMSC OT=23:19:56.1 23.07N 94.63E 107Km mb=5.4 MYANMAR**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 2328 56.28  
 RCY SZ EP 2328 57.53  
 BHL BZ EP 2328 58.32

**March 13 2010 Hour: 1:28 29.8 Lat: 33.29N Lon: 35.40E Depth: 24 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  
 NAQL SZ 31 231 EP 128 35.93 0.00 29 1.0  
 NAQL SN 31 231 ES 128 40.43 0.00 1.0  
 RCY SZ 46 61 EP 128 38.05 0.00 1.0  
 RCY SN 46 61 ES 128 44.13 0.00 1.0  
 BHL BZ 72 19 EP 128 41.60 0.00 1.0

**March 13 2010 Hour: 3:26 48.6 Lat: 33.27N Lon: 35.36E Depth: 3 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.1 secs**  
**SOUTH LEBANON**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 RCY SZ 51 60 EP 326 56.74-0.13 31 1.0  
 RCY SE 51 60 ES 327 3.06 0.07 1.0  
 BHL BZ 76 21 EP 327 0.77-0.03 1.0  
 BHL BN 76 21 ES 327 9.85 0.02 1.0  
 HWQ BZ 124 26 EP 327 8.77 0.16 1.0  
 HWQ BN 124 26 ES 327 23.33-0.09 1.0

**March 13 2010 Hour: 10:12 14.8 Lat: 34.46N Lon: 36.94E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.1MC REL Rms: 0.4 secs**  
**NEBEK REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ 55 244 EP 1012 22.88-0.76 64 1.0  
 HWQ BZ 94 258 EP 1012 30.29 0.30 1.0  
 HWQ BE 94 258 ES 1012 41.19 0.00 1.0  
 BHL BZ 134 243 EP 1012 36.73 0.29 1.0  
 RCY SZ 148 224 EP 1012 38.67 0.12 1.0  
 RCY SN 148 224 ES 1012 56.15 0.05 1.0

**March 13 2010 Hour: 10:20 11.3 Lat: 33.29N Lon: 35.42E Depth: 0 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  
 MATL SZ 24 340 EP 1020 15.17-0.01 1.0  
 RCY SZ 45 59 EP 1020 18.57-0.06 31 1.0  
 RCY SE 45 59 ES 1020 24.07 0.03 1.0  
 HWQ BZ 120 24 EP 1020 30.80 0.06 1.0  
 HWQ BN 120 24 ES 1020 45.08-0.03 1.0

**March 13 2010 Hour: 10:28 29.2 Agency: REL Regional**  
**EMSC OT=10:27:42.9 35.73N 31.02E 2Km ML=4.0 CYPRUS REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1028 49.89  
 RCY SZ EP 1028 52.94

**March 13 2010 Hour: 14:21 28.4 Agency: REL Local**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1422 6.33  
 FKH SZ EP 1422 4.86

**March 13 2010 Hour: 15:5 2.9** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 RCY SZ EP 15 6 20.42  
 HWQ BZ EP 15 6 31.47

**March 13 2010 Hour: 21:54 10.6** Agency: REL Distant  
**EMSC OT=21:42:39.9 52.86N 160.36E 26Km mb=5.4 COAST OF KAMCHATKA**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ EP 2154 52.34  
 HWQ BZ EP 2154 49.74

**March 14 2010 Hour: 4:37 12.1** Agency: REL Regional  
**EMSC OT=04:47:31.4 34.44N 32.10E 21Km ML=3.4 CYPRUS REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 NAQL SZ EP 446 57.02  
 BHL BZ EP 447 2.38  
 RCY SZ EP 447 2.17  
 HWQ BZ EP 447 3.59

**March 14 2010 Hour: 8:7 33.9** Agency: REL Distant  
**EMSC OT=08:08:05.8 37.82N 141.61E 40Km Mw=6.6 COAST OF HONSHU**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 820 12.37  
 HWQ BZ EP 820 13.39  
 BHL BZ EP 820 15.63  
 RCY SZ EP 820 16.75

**March 14 2010 Hour: 11:57 56.4 Lat: 33.76N Lon: 35.59E Depth: 12 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 19 EP 1157 59.85 0.00 30 1.0  
 RCY SZ 37 142 EP 1158 2.65-0.01 1.0  
 RCY SN 37 142 ES 1158 7.33 0.00 1.0  
 HWQ BZ 66 29 EP 1158 7.23 0.01 1.0  
 HWQ BN 66 29 ES 1158 15.26 0.00 1.0

**March 15 2010 Hour: 11:26 19.6** Agency: REL Distant  
**EMSC OT=11:08:28.0 35.82S 73.18W 10Km Mw=6.0 OFFSHORE CHILE**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ EP 1129 9.51

**March 15 2010 Hour: 12:21 29.9 Lat: 33.92N Lon: 35.72E Depth: 18 Agency: REL Local**  
**Magnitudes: 2.7MC REL Rms: 0.0 secs**  
**BEIRUT REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ 6 252 EP 1221 33.10-0.02 39 1.0  
 BHL BN 6 252 ES 1221 35.54 0.01 1.0  
 HWQ BZ 45 28 EP 1221 37.61 0.00 1.0  
 RCY SZ 48 167 EP 1221 38.12 0.02 1.0  
 RCY SE 48 167 ES 1221 44.17-0.01 1.0

**March 15 2010 Hour: 14:48 42.4 Lat: 33.72N Lon: 35.50E Depth: 9 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 25 35 EP 1448 46.76-0.01 1.0  
 BHL BN 25 35 ES 1448 50.04 0.00 1.0  
 RCY SZ 40 128 EP 1448 49.05 0.01 34 1.0  
 RCY SE 40 128 ES 1448 53.99 0.00 1.0  
 HWQ BZ 75 34 EP 1448 54.51 0.00 1.0

March 15 2010 Hour: 23:36 43.3 Lat: 33.31N Lon: 35.46E Depth: 3 Agency: REL Local  
Magnitudes: 3.3MC REL Rms: 0.2 secs

**SOUTH LEBANON**  
**Earthquake was felt**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MATL	SZ	23	329	EP		2336	46.86	-0.18							1.0
NAQL	SZ	37	234	EP		2336	49.23	-0.05							1.0
RCY	SZ	41	60	EP		2336	49.99	0.06							1.0
RCY	SE	41	60	ES		2336	54.78	-0.04							1.0
BEYL	BZ	62	3	EP		2336	53.39	0.06							1.0
BEYL	BN	62	3	ES		2337	0.89	0.15							1.0
BHL	BZ	68	16	EP		2336	53.92	-0.39	90						1.0
BHL	BN	68	16	ES		2337	2.65	0.20							1.0
HWQ	SZ	116	23	EP		2337	2.10	0.03							1.0
HWQ	SN	116	23	ES		2337	16.01	0.07							0.2

March 15 2010 Hour: 23:55 2.7 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		2355	32.36								
BHL	BZ			EP		2355	36.29								

March 16 2010 Hour: 16:17 25.4 Lat: 33.72N Lon: 35.48E 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	26	38	EP		1617	30.21	0.01							1.0
BHL	BE	26	38	ES		1617	33.74	-0.01							1.0
RCY	SZ	41	127	EP		1617	32.43	-0.01	37						1.0
RCY	SE	41	127	ES		1617	37.65	0.00							1.0
HWQ	BZ	76	35	EP		1617	37.57	0.00							1.0

March 16 2010 Hour: 22: 2 43.2 Agency: REL Regional

**EMSC OT=22:01:34.3 34.98N 27.77E 60Km mb=4.2 EAST MED SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		22 3	10.20								
RCY	SZ			EP		22 3	10.27								

March 17 2010 Hour: 5:32 0.9 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		532	52.95								

March 18 2010 Hour: 9:19 59.0 Agency: REL Distant

**EMSC OT=09:14:06.7 23.36S 177.06W 160Km mb=5.6 SOUTH OF FIJI ISLS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		933	36.26								
RCY	SZ			EP		933	37.57								
BHL	BZ			EP		933	37.49								

March 19 2010 Hour: 15:39 16.4 Lat: 34.11N Lon: 35.48E Depth: 13 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
BHL	BZ	28	146	EP		1539	21.45	0.00	42						1.0
HWQ	BZ	46	67	EP		1539	24.21	0.01							1.0
HWQ	BN	46	67	ES		1539	30.01	0.00							1.0
RCY	SZ	76	154	EP		1539	28.51	-0.01							1.0
RCY	SE	76	154	ES		1539	37.52	0.00							1.0

**March 20 2010 Hour: 10:12 19.8** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1013 12.30  
 RCY SZ EP 1012 59.85

**March 20 2010 Hour: 10:21 2.1** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1022 0.60  
 FKH SZ EP 1021 53.68

**March 20 2010 Hour: 12:40 43.3 Lat: 34.41N Lon: 36.74E Depth: 1 Agency: REL Local**  
**Magnitudes: 2.9MC REL Rms: 0.2 secs**  
**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	35	238	EP		1240	48.64	-0.34	55						1.0
FKH	SN	35	238	ES		1240	53.29	0.10							1.0
HWQ	BZ	74	259	EP		1240	55.42	0.17							1.0
HWQ	BN	74	259	ES		1241	4.05	-0.05							1.0
BHL	BZ	115	241	EP		1241	1.64	-0.12							0.2
RCY	SZ	131	220	EP		1241	4.62	0.17							1.0
RCY	SE	131	220	ES		1241	20.05	-0.05							1.0

**March 20 2010 Hour: 13:1 37.5** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 13 2 21.34  
 FKH SZ EP 13 2 14.90

**March 20 2010 Hour: 13:17 23.6 Lat: 33.74N Lon: 35.49E Depth: 13 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	24	39	EP		1317	28.15	-0.03	32						1.0
BHL	BE	24	39	ES		1317	31.57	0.02							1.0
RCY	SZ	42	130	EP		1317	30.83	0.03							1.0
RCY	SE	42	130	ES		1317	36.08	-0.02							1.0
HWQ	BZ	73	35	EP		1317	35.44	0.00							1.0

**March 20 2010 Hour: 16:15 33.9** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 1616 12.51  
 HWQ BZ EP 1616 14.18

**March 20 2010 Hour: 18:45 30.7 Lat: 32.94N Lon: 35.66E Depth: 4 Agency: REL Regional**  
**Magnitudes: 3.6MC REL Rms: 0.2 secs**  
**EMSC OT=18:45:30.7 32.88N 35.53E 12Km ML=3.6 DEAD SEA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	53	293	EP		1845	39.14	-0.07							1.0
RCY	SZ	64	15	EP		1845	41.10	-0.01							1.0
MATL	SZ	69	333	EP		1845	41.99	0.19							1.0
BEYL	BZ	105	351	EP		1845	47.85	0.20							1.0
BHL	BZ	108	360	EP		1845	47.71	-0.34	123						1.0
HWQ	BZ	151	10	EP		1845	54.43	-0.11							1.0
HWQ	BN	151	10	ES		1846	12.12	-0.08							1.0
FKH	SZ	161	25	EP		1845	56.22	0.25							1.0

**March 21 2010 Hour: 11:26 39.0 Lat: 33.77N Lon: 36.79E Depth: 18 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.0 secs**  
**DAMASCUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	94	251	EP		1126	53.82	0.01	58						1.0
RCY	SN	94	251	ES		1127	4.75	0.00							1.0
HWQ	BZ	96	306	EP		1126	54.15	0.01							1.0
HWQ	BN	96	306	ES		1127	5.34	0.00							1.0

BHL BZ 106 278 EP 1126 55.60-0.01 1.0

**March 21 2010 Hour: 11:58 43.8 Lat: 33.57N Lon: 37.02E Depth: 48 Agency: REL Local**  
**Magnitudes: 3.2MC 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	110	266	EP		1159	0.84	-0.02	67						1.0
RCY	SN	110	266	ES		1159	13.48	0.01							1.0
HWQ	BZ	127	309	EP		1159	2.85	0.00							1.0
BHL	BZ	132	287	EP		1159	3.48	0.02							1.0
BHL	BE	132	287	ES		1159	18.00	-0.01							1.0

**March 22 2010 Hour: 10: 7 43.5 Lat: 34.40N Lon: 36.68E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.2 secs**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	30	235	EP		10 7	48.12	-0.25	60						1.0
FKH	SN	30	235	ES		10 7	51.97	0.01							1.0
HWQ	BZ	69	259	EP		10 7	54.79	0.20							1.0
HWQ	BN	69	259	ES		10 8	2.83	0.05							1.0
BHL	BZ	109	240	EP		10 8	0.83	-0.31							1.0
RCY	SZ	127	218	EP		10 8	4.30	0.31							1.0
RCY	SN	127	218	ES		10 8	19.12	-0.01							1.0

**March 22 2010 Hour: 10:53 17.6 Lat: 33.73N Lon: 35.51E Depth: 5 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	23	36	EP		1053	21.35	-0.09							1.0
BHL	BE	23	36	ES		1053	24.37	0.05							1.0
RCY	SZ	40	131	EP		1053	24.14	0.00	32						1.0
RCY	SE	40	131	ES		1053	29.02	0.00							1.0
HWQ	BZ	73	34	EP		1053	29.41	0.09							1.0
HWQ	BE	73	34	ES		1053	37.97	-0.05							1.0

**March 22 2010 Hour: 11:38 0.7 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1138	36.67								
FKH	SZ			EP		1138	29.72								

**March 22 2010 Hour: 14:28 3.2 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1428	29.83								
HWQ	BZ			EP		1428	32.26								

**March 23 2010 Hour: 8:25 11.7 Agency: REL Regional**

**EMSC OT=08:25:02.6 39.66N 27.57E 13Km MD=2.8 WESTERN TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		825	49.45								
RCY	SZ			EP		825	40.76								

**March 23 2010 Hour: 10: 5 38.5 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		10 6	14.11								
HWQ	BZ			EP		10 6	20.73								

**March 23 2010 Hour: 11:50 15.6 Lat: 34.37N Lon: 36.76E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.2 secs**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	35	247	EP		1150	21.03	-0.24	61						1.0
FKH	SN	35	247	ES		1150	25.45	-0.02							1.0
HWQ	BZ	76	262	EP		1150	27.96	0.16							1.0
HWQ	BN	76	262	ES		1150	36.88	0.06							1.0



BHL	BZ	114	243	EP		1150	33.91	-0.15										1.0
RCY	SZ	129	222	EP		1150	36.65	0.19										1.0

**March 23 2010 Hour: 16:40 20.9 Lat: 34.41N Lon: 35.99E Depth: 0 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	BZ	15	194	EP		1640	23.25	-0.09	43						1.0
HWQ	BN	15	194	ES		1640	25.16	0.01							1.0
FKH	SZ	43	115	EP		1640	27.87	0.00							1.0
FKH	SN	43	115	ES		1640	33.02	0.01							1.0
BHL	BZ	64	209	EP		1640	31.28	0.07							1.0

**March 24 2010 Hour: 10:58 40.6 Lat: 33.80N Lon: 35.76E Depth: 0 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.3 secs**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	320	EP		1058	43.23	0.08	62						1.0
BEYL	BZ	26	289	EP		1058	44.86	-0.01							1.0
RCY	SZ	34	169	EP		1058	45.66	-0.44	61						1.0
RCY	SE	34	169	ES		1058	50.14	-0.01							1.0
HWQ	SZ	56	18	EP		1058	49.71	0.05							1.0
HWQ	SN	56	18	ES		1058	56.36	0.01							1.0

**March 24 2010 Hour: 11: 0 24.1 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		11	1	8.28							
FKH	SZ			EP		11	1	1.41							

**March 24 2010 Hour: 11:48 41.4 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1149	15.59								
FKH	SZ			EP		1149	13.62								

**March 24 2010 Hour: 12:43 39.1 Lat: 34.52N Lon: 36.73E Depth: 6 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.1 secs**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	77	250	EP		1243	51.47	-0.05	60						1.0
HWQ	BN	77	250	ES		1244	0.75	0.03							1.0
BHL	BZ	120	236	EP		1243	58.39	0.09							1.0
BHL	BE	120	236	ES		1244	12.46	-0.05							1.0
RCY	SZ	140	216	EP		1244	1.23	-0.04							1.0
RCY	SE	140	216	ES		1244	17.71	0.02							1.0

**March 24 2010 Hour: 14:11 51.1 Agency: REL Regional**

**EMSC OT=14:11:34.3 38.69N 40.27E 15Km mb=5.0 EASTERN TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1412	54.11								
HWQ	BZ			EP		1412	56.35								
BHL	BZ			EP		1413	2.87								
RCY	SZ			EP		1413	6.61								
NAQL	SZ			EP		1413	14.32								

**March 24 2010 Hour: 16:18 10.3 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1618	40.85								
HWQ	BZ			EP		1618	43.31								

**March 25 2010 Hour: 5:29 42.8** Agency: REL Distant  
**EMSC OT=05:29:31.6 13.71N 120.12E 71Km Mw=6.1 PHILIPPINES**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 541 19.78  
 HWQ BZ EP 541 21.44  
 BHL BZ EP 541 23.02  
 RCY SZ EP 541 23.54

**March 25 2010 Hour: 14:11 11.9** Lat: 33.88N Lon: 36.67E Depth: 0 Agency: REL Local  
 Magnitudes: 3.0MC REL Rms: 0.1 secs  
**DAMASCUS REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ 47 329 EP 1411 19.51-0.08 60 1.0  
 FKH SN 47 329 ES 1411 25.18-0.06 1.0  
 HWQ BZ 80 304 EP 1411 25.18 0.26 1.0  
 HWQ BE 80 304 ES 1411 34.50-0.02 1.0  
 RCY SZ 88 242 EP 1411 26.14-0.07 1.0  
 BHL BZ 94 272 EP 1411 27.11-0.04 1.0

**March 27 2010 Hour: 0:5 16.7** Lat: 33.63N Lon: 35.60E Depth: 11 Agency: REL Local  
 Magnitudes: 3.0MC REL Rms: 0.0 secs  
**SAIDA REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 RCY SZ 26 125 EP 0 5 21.43 0.01 63 1.0  
 RCY SE 26 125 ES 0 5 24.88-0.01 1.0  
 BHL SZ 31 9 EP 0 5 22.04-0.01 1.0  
 BHL SN 31 9 ES 0 5 25.98 0.00 1.0  
 HWQ BZ 78 24 EP 0 5 29.44-0.01 1.0  
 FKH SZ 101 47 EP 0 5 32.77 0.01 1.0

**March 27 2010 Hour: 14:47 3.5** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1447 44.99  
 FKH SZ EP 1447 42.84

**March 27 2010 Hour: 15:0 3.9** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 15 0 52.26  
 FKH SZ EP 15 0 46.67

**March 27 2010 Hour: 23:36 36.8** Agency: REL Regional  
**EMSC OT=23:34:59.0 35.10N 27.32E 2Km mb=4.3 DODECANESE ISLANDS**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ EP 2336 40.93  
 HWQ BZ EP 2336 43.82  
 RCY SZ EP 2336 44.74

**March 28 2010 Hour: 11:48 14.0** Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1149 3.87  
 FKH SZ EP 1149 1.37

**March 29 2010 Hour: 15:46 4.3** Lat: 33.99N Lon: 36.15E Depth: 23 Agency: REL Local  
 Magnitudes: 3.0MC REL Rms: 0.0 secs  
**CENTRAL BEKAA**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ 37 330 EP 1546 11.27-0.01 1.0  
 HWQ BN 37 330 ES 1546 16.45 0.01 1.0  
 BHL BZ 47 259 EP 1546 12.52 0.00 1.0  
 BHL BN 47 259 ES 1546 18.60 0.00 1.0  
 RCY SZ 62 208 EP 1546 14.64 0.01 53 1.0

March 30 2010 Hour: 11:51 24.1 Lat: 33.21N Lon: 35.37E Depth: 7 Agency: REL Local  
Magnitudes: 2.8MC 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	53	54	EP		1151	32.77	-0.05	46						1.0
RCY	SN	53	54	ES		1151	39.31	0.03							1.0
BHL	BZ	81	19	EP		1151	37.22	0.00							1.0
HWQ	BZ	130	24	EP		1151	44.64	0.05							1.0
HWQ	BN	130	24	ES		1151	59.73	-0.03							1.0

March 30 2010 Hour: 16:54 27.8 Agency: REL Distant  
EMSC OT=16:54:47.8 13.66N 92.86E 40Km Mw=6.6 ANDAMAN ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		17 4	17.31								
HWQ	BZ			EP		17 4	17.37								
BHL	BZ			EP		17 4	18.68								

March 31 2010 Hour: 10:41 4.2 Lat: 33.90N Lon: 35.83E 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	16	271	EP		1041	6.65	-0.08	52						1.0
DQRL	SZ	32	228	EP		1041	9.40	0.06							1.0
DQRL	SN	32	228	ES		1041	13.19	0.01							1.0
HWQ	BZ	43	15	EP		1041	11.13	0.00							1.0
RCY	SZ	45	179	EP		1041	11.47	0.07							1.0
RCY	SN	45	179	ES		1041	16.69	-0.08							1.0
FKH	SZ	66	55	EP		1041	14.91	0.10							1.0
FKH	SN	66	55	ES		1041	22.61	-0.08							1.0



# Epicentral Map of Lebanon

## MARCH 2010

