

Republic of Lebanon  
National Council for Scientific Research

# Provisional Seismological Bulletin

from the

## NATIONAL SEISMIC NETWORK

April

2010

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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.

<b>P-wave velocity (km/sec)</b>	<b>depth to top of layer (km)</b>
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:

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

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 Vp/Vs 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\*(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.

**April 1 2010 Hour: 1:41 16.5** Agency: REL Regional

**EMSC OT=01:41:16.5 36.31N 35.99E 2Km ML=3.3 CENTRAL TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		141	51.35								
BHL	BZ			EP		141	56.75								
DQRL	SZ			EP		142	0.10								

**April 1 2010 Hour: 16:18 20.6** Lat: 33.55N Lon: 36.02E Depth: 23 Agency: REL Local

**Magnitudes: 2.7MC REL**

**MOUNT HERMON REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	18	251	EP		1618	25.27	-0.10	41						1.0
RCY	SE	18	251	ES		1618	28.96	0.06							1.0
DQRL	SZ	45	293	EP		1618	28.73	0.17							1.0
DQRL	SN	45	293	ES		1618	34.43	-0.02							1.0
BHL	BZ	52	319	EP		1618	29.30	-0.18							1.0
HWQ	BZ	81	355	EP		1618	33.73	0.09							1.0

**April 2 2010 Hour: 1:523.2** Agency: REL Regional

**EMSC OT=01:05:23.2 35.90N 31.11E 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		1	6	27.59							
HWQ	BZ			EP		1	6	29.35							
DQRL	SZ			EP		1	6	28.12							
NAQL	SZ			EP		1	6	29.71							
RCY	SZ			EP		1	6	32.98							

**April 2 2010 Hour: 15:42 4.3** Lat: 33.78N Lon: 35.79E Depth: 0 Agency: REL Local

**Magnitudes: 2.7MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	19	318	EP		1542	7.29	0.01	41						1.0
BHL	BN	19	318	ES		1542	9.50	0.01							1.0
DQRL	SZ	22	248	EP		1542	7.84	0.02							1.0
DQRL	SN	22	248	ES		1542	10.37	-0.06							1.0
BEYL	BZ	29	290	EP		1542	8.97	-0.02							1.0
RCY	SZ	32	172	EP		1542	9.45	0.02							1.0
HWQ	BZ	57	15	EP		1542	13.45	-0.05							1.0

**April 3 2010 Hour: 10:42 57.5** Lat: 33.79N Lon: 35.74E Depth: 12 Agency: REL Local

**Magnitudes: 2.6MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	328	EP		1043	0.71	-0.03	36						1.0
BHL	BE	15	328	ES		1043	3.10	-0.01							1.0
DQRL	SZ	18	238	EP		1043	1.27	0.09							1.0
RCY	SZ	34	165	EP		1043	3.38	-0.07							1.0
RCY	SN	34	165	ES		1043	7.84	0.02							1.0
HWQ	BZ	57	20	EP		1043	7.07	0.05							1.0

**April 3 2010 Hour: 11:13 18.2** Lat: 34.41N Lon: 36.61E Depth: 8 Agency: REL Local

**Magnitudes: 3.0MC REL**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	63	256	EP		1113	28.40	-0.06	56						1.0
HWQ	BN	63	256	ES		1113	36.07	0.03							1.0
BHL	BZ	105	238	EP		1113	34.92	-0.01							1.0
DQRL	SZ	124	231	EP		1113	37.84	0.07							1.0
DQRL	SN	124	231	ES		1113	52.21	-0.03							1.0
RCY	SZ	124	215	EP		1113	37.85	0.00							1.0

**April 3 2010 Hour: 11:16 21.3 Lat: 34.38N Lon: 36.63E Depth: 6 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	BZ	64	260	EP		1116	31.64	-0.06	62						1.0
HWQ	BE	64	260	ES		1116	39.36	-0.01							1.0
BHL	BZ	104	240	EP		1116	38.35	0.15							1.0
DQRL	SZ	123	233	EP		1116	40.96	-0.02							1.0
DQRL	SN	123	233	ES		1116	55.50	-0.01							1.0
RCY	SZ	123	217	EP		1116	40.85	-0.06							1.0

**April 4 2010 Hour: 7:46 55.5 Lat: 33.14N Lon: 35.94E Depth: 0 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
RCY	SZ	41	347	EP		747	2.06	-0.04	43						1.0
RCY	SN	41	347	ES		747	6.97	0.01							1.0
DQRL	SZ	71	332	EP		747	7.06	0.00							1.0
DQRL	SN	71	332	ES		747	15.57	-0.01							1.0
BHL	BZ	89	343	EP		747	9.90	0.04							1.0
HWQ	BZ	126	0	EP		747	15.91	0.00							1.0

**April 4 2010 Hour: 17:3 24.4 Lat: 33.79N Lon: 35.74E 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	15	329	EP		17	3	27.35	-0.01	36					1.0
BHL	BN	15	329	ES		17	3	29.56	-0.01						1.0
DQRL	SZ	18	239	EP		17	3	27.82	0.03						1.0
RCY	SZ	34	164	EP		17	3	30.06	-0.06						1.0
RCY	SE	34	164	ES		17	3	34.40	0.03						1.0
HWQ	BZ	58	19	EP		17	3	33.85	0.03						1.0

**April 5 2010 Hour: 10:5 47.2**

**Agency: REL Distant**

**EMSC OT=10:05:47.2 00.10S 125.06E 46Km mb=5.9 MOLUCCA SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1018		37.96							
HWQ	BZ			EP		1018		39.39							
RCY	SZ			EP		1018		39.88							
BHL	BZ			EP		1018		40.44							
DQRL	SZ			EP		1018		41.33							

**April 6 2010 Hour: 1:4 2.5 Magnitudes: 2.4MC REL**

**Lat: 33.69N Lon: 35.84E Depth: 3 Agency: REL Local Rms: 0.0 secs**

**CENTRAL BEKAA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	21	180	EP		1	4	6.01	0.02	27					1.0
RCY	SE	21	180	ES		1	4	8.57	-0.01						1.0
DQRL	SZ	25	275	EP		1	4	6.55	-0.02						1.0
DQRL	SN	25	275	ES		1	4	9.59	0.01						1.0
BHL	BZ	30	325	EP		1	4	7.31	0.00						1.0
HWQ	BZ	66	9	EP		1	4	13.29	0.05						0.2

**April 6 2010 Hour: 16:29 9.7**

**Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1629		55.02							
FKH	SZ			EP		1629		48.52							

**April 6 2010 Hour: 22:15 3.0** Agency: REL Distant  
**EMSC OT=22:15:03.0 02.30N 97.12E 40Km Mw=7.7 NORTHERN SUMATRA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2225	38.38								
RCY	SZ			EP		2225	39.75								
HWQ	BZ			EP		2225	40.39								
BHL	BZ			EP		2225	41.36								
DQRL	SZ			EP		2225	41.88								
NAQL	SZ			EP		2225	42.32								

**April 7 2010 Hour: 5:58 28.4** Lat: 33.79N Lon: 35.77E Depth: 8 Agency: REL Local Magnitudes: 2.7MC REL BEIRUT REGION  
**Rms: 0.0 secs**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	321	EP		558	31.53	0.02	37						1.0
BHL	BE	16	321	ES		558	33.79	-0.01							1.0
DQRL	SZ	20	243	EP		558	32.06	0.00							1.0
DQRL	SN	20	243	ES		558	34.76	0.00							1.0
BEYL	BZ	27	290	EP		558	32.94	-0.04							0.2
RCY	SZ	33	169	EP		558	34.00	0.00							1.0
HWQ	BZ	57	17	EP		558	37.70	-0.01							1.0

**April 9 2010 Hour: 7: 9 12.0** Agency: REL Regional  
**EMSC OT=07:09:12.0 35.62N 29.42E 10Km mb=4.2 EAST MED SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		710	36.53								
HWQ	BZ			EP		710	34.40								

**April 9 2010 Hour: 12:28 45.7** Lat: 33.90N Lon: 35.83E Depth: 0 Agency: REL Local Magnitudes: 2.7MC REL BEIRUT REGION  
**Rms: 0.0 secs**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	270	EP		1228	48.17	-0.06	38						1.0
BHL	BN	16	270	ES		1228	50.09	-0.03							1.0
DQRL	SZ	32	227	EP		1228	50.90	0.01							1.0
DQRL	SE	32	227	ES		1228	54.82	0.08							1.0
HWQ	BZ	43	15	EP		1228	52.66	0.05							1.0
RCY	SZ	45	179	EP		1228	52.93	-0.05							1.0
RCY	SN	45	179	ES		1228	58.38	0.00							1.0

**April 10 2010 Hour: 10:54 9.5** Agency: REL Local  
**STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VEL WT**  
**HWQ BZ EP 1055 5.22**  
**FKH SZ EP 1054 57.88**

**April 10 2010 Hour: 14:31 26.7** Lat: 34.58N Lon: 36.40E Depth: 0 Agency: REL Local Magnitudes: 2.8MC REL HERMEL BAALBEK REGION  
**Rms: 0.1 secs**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	37	178	EP		1431	32.55	-0.04	42						1.0
HWQ	BZ	53	231	EP		1431	35.24	0.06							1.0
HWQ	BN	53	231	ES		1431	41.40	-0.09							1.0
BHL	BZ	101	223	EP		1431	42.90	-0.05							1.0
DQRL	SZ	123	218	EP		1431	46.53	0.05							1.0
DQRL	SN	123	218	ES		1432	1.21	0.07							1.0

**April 10 2010 Hour: 16:54 24.7** Agency: REL Distant  
**EMSC OT=16:54:24.7 20.11S 176.17W 276Km Mw=5.9 FIJI REGION**  
**STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VEL WT**  
**FKH SZ EP 1713 38.70**  
**HWQ BZ EP 1713 38.87**  
**BHL BZ EP 1713 40.06**  
**DQRL SZ EP 1713 40.70**

RCY SZ EP 1713 40.32

April 11 2010 Hour: 0:20 13.5 Lat: 34.06N Lon: 36.92E Depth: 8 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	52	294	EP		020	21.84	-0.06	57						1.0
FKH	SE	52	294	ES		020	28.13	-0.01							1.0
HWQ	BZ	93	285	EP		020	28.65	0.09							1.0
BHL	BZ	118	262	EP		020	32.26	-0.01							1.0
DQRL	SZ	131	253	EP		020	34.13	0.00							1.0
DQRL	SN	131	253	ES		020	49.49	0.06							0.0

April 11 2010 Hour: 8:44 38.1 Lat: 33.18N Lon: 35.83E Depth: 0 Agency: REL Local Magnitudes: 2.7MC REL Rms: 0.1 secs

**NORTH GALILEE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	35	2	EP		844	43.70	-0.11	38						1.0
RCY	SN	35	2	ES		844	47.95	-0.04							1.0
BHL	BZ	82	349	EP		844	51.38	0.04							1.0
HWQ	BZ	122	5	EP		844	57.93	0.07							1.0
HWQ	BN	122	5	ES		845	12.50	0.04							1.0

April 11 2010 Hour: 9:40 31.1

Agency: REL Distant

**EMSC OT=09:40:31.1 10.88S 161.13E 60Km Mw=6.8 SOLOMON ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		959	23.41								
HWQ	BZ			EP		959	24.66								
BHL	BZ			EP		959	25.44								
RCY	SZ			EP		959	26.05								
DQRL	SZ			EP		959	26.02								

April 11 2010 Hour: 13: 2 42.0

Lat: 33.78N Lon: 35.77E Depth: 2 Agency: REL Local Magnitudes: 2.6MC REL Rms: 0.0 secs

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	323	EP		13	2	44.83	0.00	35					1.0
DQRL	SZ	20	245	EP		13	2	45.32	0.03						1.0
DQRL	SN	20	245	ES		13	2	47.68	-0.02						1.0
RCY	SZ	32	168	EP		13	2	47.22	-0.03						1.0
RCY	SN	32	168	ES		13	2	51.14	0.02						1.0
HWQ	BZ	58	17	EP		13	2	51.31	0.00						1.0

April 11 2010 Hour: 14: 6 1.9

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		14	7	3.66							
FKH	SZ			EP		14	7	0.49							

April 11 2010 Hour: 22: 8 11.5

Agency: REL Distant

**EMSC OT=22:08:11.5 37.07N 03.51W 623Km Mw=6.3 SPAIN**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ			EP		2213	48.28								
DQRL	SZ			EP		2213	49.01								
BHL	BZ			EP		2213	48.83								
HWQ	BZ			EP		2213	50.60								
RCY	SZ			EP		2213	51.25								

April 12 2010 Hour: 13: 4 0.2

Lat: 32.57N Lon: 35.37E Depth: 18 Agency: REL Local Magnitudes: 3.2MC REL Rms: 0.1 secs

**NORTH GALILEE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	112	23	EP		13	4	17.79	0.13	68					1.0
RCY	SN	112	23	ES		13	4	30.53	-0.08						1.0
DQRL	SZ	128	8	EP		13	4	19.82	-0.13						1.0

DQRL	SN	128	8	ES	13	4	34.68	0.08		1.0
BHL	BZ	151	10	EP	13	4	23.18	-0.04		1.0
HWQ	BZ	197	16	EP	13	4	29.05	0.04		1.0

**April 12 2010 Hour: 15:18 23.5 Lat: 33.80N Lon: 35.77E Depth: 15 Agency: REL Local Magnitudes: 2.7MC REL BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	318	EP		1518	27.10	-0.01	39						1.0
DQRL	SZ	21	241	EP		1518	27.79	0.06							1.0
DQRL	SN	21	241	ES		1518	30.83	-0.04							1.0
RCY	SZ	34	170	EP		1518	29.50	-0.02							1.0
RCY	SE	34	170	ES		1518	33.99	0.01							1.0
HWQ	BZ	56	17	EP		1518	32.59	-0.10							0.2

**April 12 2010 Hour: 15:43 32.8 Lat: 33.79N Lon: 35.78E Depth: 9 Agency: REL Local Magnitudes: 2.8MC REL BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	317	EP		1543	36.18	0.02							1.0
DQRL	SZ	22	246	EP		1543	36.74	0.00	45						1.0
DQRL	SN	22	246	ES		1543	39.64	-0.01							1.0
RCY	SZ	33	172	EP		1543	38.39	0.02							1.0
RCY	SE	33	172	ES		1543	42.48	-0.01							1.0
HWQ	BZ	56	15	EP		1543	42.07	-0.02							1.0

**April 13 2010 Hour: 9:36 0.1 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		937	9.13								
FKH	SZ			EP		937	2.55								

**April 13 2010 Hour: 15:18 20.8 Agency: REL Regional EMSC OT=15:18:20.8 36.18N 27.48E 15Km ML=4.2 DODECANESE ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1520	2.70								
HWQ	BZ			EP		1520	4.40								
RCY	SZ			EP		1520	6.85								

**April 13 2010 Hour: 16:35 51.9 Lat: 33.79N Lon: 35.78E Depth: 0 Agency: REL Local Magnitudes: 2.8MC REL BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	317	EP		1635	54.70	-0.02							1.0
DQRL	SZ	22	244	EP		1635	55.50	0.05	45						1.0
DQRL	SN	22	244	ES		1635	58.04	-0.01							1.0
RCY	SZ	33	171	EP		1635	57.25	-0.02							1.0
RCY	SN	33	171	ES		1636	1.21	0.00							1.0
HWQ	BZ	56	16	EP		1636	1.18	0.19							0.2

**April 13 2010 Hour: 23:49 40.5 Agency: REL Distant EMSC OT=23:49:40.5 33.23N 96.65E 33Km Mw=6.9 SOUTHERN QINGHAI**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2358	28.03								
HWQ	BZ			EP		2358	30.23								
RCY	SZ			EP		2358	32.80								
BHL	BZ			EP		2358	32.90								
DQRL	SZ			EP		2358	34.18								

**April 14 2010 Hour: 14:51 45.5 Lat: 34.07N Lon: 35.58E Depth: 12 Agency: REL Local Magnitudes: 2.7MC 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	19	160	EP		1451	49.26	0.01	41						1.0
BHL	BN	19	160	ES		1451	52.06	0.02							1.0
DQRL	SZ	40	182	EP		1451	52.32	0.03							1.0
DQRL	SE	40	182	ES		1451	57.30	-0.04							1.0
HWQ	BZ	41	55	EP		1451	52.37	-0.02							1.0
RCY	SZ	68	160	EP		1451	56.53	0.01							1.0
RCY	SN	68	160	ES		1452	4.70	0.00							1.0

**April 14 2010 Hour: 16:11 19.0 Lat: 33.78N Lon: 35.75E 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	326	EP		1611	21.67	0.07	42						1.0
BHL	BN	16	326	ES		1611	23.33	-0.16							1.0
DQRL	SZ	19	242	EP		1611	22.25	0.18							1.0
DQRL	SN	19	242	ES		1611	24.28	-0.03							1.0
BEYL	BZ	26	292	EP		1611	23.18	0.02							1.0
RCY	SZ	33	166	EP		1611	24.17	-0.19							1.0
RCY	SE	33	166	ES		1611	28.34	0.03							1.0
HWQ	BZ	58	18	EP		1611	28.42	0.09							1.0

**April 15 2010 Hour: 6:28 22.0 Lat: 33.74N Lon: 35.81E Depth: 11 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
DQRL	SZ	23	260	EP		628	26.44	0.29							1.0
DQRL	SE	23	260	ES		628	29.21	-0.04							1.0
BHL	BZ	23	321	EP		628	26.22	-0.01	23						1.0
RCY	SZ	27	175	EP		628	26.77	-0.05							1.0
RCY	SN	27	175	ES		628	30.39	-0.02							1.0
BEYL	BZ	33	296	EP		628	27.40	-0.19							1.0
BEYL	BZ	33	296	EP		628	27.40	-0.19							0.2
HWQ	BZ	61	12	EP		628	32.05	0.05							1.0

**April 15 2010 Hour: 10:16 2.3 Lat: 33.79N Lon: 35.78E Depth: 0 Agency: REL Local Magnitudes: 2.8MC REL Rms: 0.1 secs**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	319	EP		1016	5.02	-0.09	47						1.0
DQRL	SZ	21	244	EP		1016	5.72	-0.05							1.0
RCY	SZ	33	170	EP		1016	7.72	0.06							1.0
RCY	SN	33	170	ES		1016	11.54	-0.05							1.0
HWQ	BZ	57	16	EP		1016	11.49	0.03							1.0
HWQ	BN	57	16	ES		1016	18.18	-0.02							1.0

**April 15 2010 Hour: 16:56 17.5 Lat: 33.79N Lon: 35.76E Depth: 6 Agency: REL Local Magnitudes: 3.0MC REL Rms: 0.0 secs**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	322	EP		1656	20.40	0.01	62						1.0
DQRL	SZ	20	242	EP		1656	21.02	0.02							1.0
DQRL	SN	20	242	ES		1656	23.56	0.00							1.0
RCY	SZ	33	168	EP		1656	23.06	-0.01							1.0
RCY	SN	33	168	ES		1656	27.15	-0.01							1.0
HWQ	BZ	57	17	EP		1656	26.71	-0.05							1.0
FKH	SZ	78	50	EP		1656	30.26	0.04							1.0

**April 16 2010 Hour: 12:16 36.8** Lat: 33.78N Lon: 35.77E Depth: 4 Agency: REL Local  
**Magnitudes: 2.9MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	321	EP		1216	39.66	-0.01	53						1.0
DQRL	SZ	21	245	EP		1216	40.22	0.03							1.0
DQRL	SN	21	245	ES		1216	42.71	-0.01							1.0
RCY	SZ	32	169	EP		1216	42.03	-0.04							1.0
RCY	SN	32	169	ES		1216	46.01	0.02							1.0
HWQ	BZ	57	16	EP		1216	46.03	0.01							1.0

**April 17 2010 Hour: 3:38 52.5**

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		339	22.93								
DQRL	SZ			EP		339	19.59								

**April 17 2010 Hour: 3:41 3.7**

Lat: 33.58N Lon: 35.46E Depth: 0 Agency: REL Local

**Magnitudes: 2.8MC REL**

Rms: 0.2 secs

**SAIDA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	17	36	EP		341	6.40	-0.02							1.0
DQRL	SN	17	36	ES		341	8.41	0.00							1.0
RCY	SZ	36	106	EP		341	9.52	0.00	44						1.0
RCY	SE	36	106	ES		341	13.81	0.00							1.0
BHL	BZ	40	26	EP		341	10.08	-0.03							1.0
HWQ	BZ	89	30	EP		341	18.84	0.77							0.2

**April 17 2010 Hour: 3:43 0.5**

Lat: 33.61N Lon: 35.50E 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
DQRL	SZ	13	30	EP		343	2.62	0.00	34						1.0
DQRL	SN	13	30	ES		343	4.15	-0.01							1.0
RCY	SZ	33	111	EP		343	5.92	-0.01							1.0
RCY	SE	33	111	ES		343	9.94	0.01							1.0
BHL	BZ	36	23	EP		343	6.37	0.02							1.0
HWQ	BZ	85	29	EP		343	14.28	0.00							1.0

**April 17 2010 Hour: 14:10 17.6**

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1411	9.77								
HWQ	BZ			EP		1411	11.86								

**April 18 2010 Hour: 9:53 4.5**

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		953	41.70								
HWQ	BZ			EP		953	48.52								

**April 18 2010 Hour: 11:9 32.5**

Lat: 34.41N Lon: 36.76E 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
HWQ	BZ	76	259	EP		11	9	44.78	-0.01	59					1.0
HWQ	BN	76	259	ES		11	9	53.84	-0.01						1.0
BHL	BZ	116	241	EP		11	9	51.30	0.03						1.0
RCY	SZ	132	220	EP		11	9	53.82	-0.06						1.0
RCY	SN	132	220	ES		1110	9.68	0.01							1.0
DQRL	SZ	134	235	EP		11	9	54.23	0.05						1.0

**April 18 2010 Hour: 11:17 45.0** Lat: 34.50N Lon: 36.80E Depth: 0 Agency: REL Local  
**Magnitudes: 2.9MC REL**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	46	232	EP		1117	52.23	-0.10	51						1.0
FKH	SN	46	232	ES		1117	57.68	-0.10							1.0
HWQ	BZ	82	253	EP		1117	58.39	0.15							1.0
BHL	BZ	125	238	EP		1118	5.04	-0.02							1.0
RCY	SZ	142	219	EP		1118	7.87	0.00							1.0
RCY	SN	142	219	ES		1118	24.95	0.14							1.0
DQRL	SZ	144	233	EP		1118	7.93	-0.08							1.0

**April 18 2010 Hour: 20:28 50.6**

Agency: REL Distant

**EMSC OT=20:28:50.6 35.71N 67.71E 10Km Mw=5.6 AFGHANISTAN**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2034	21.19								
HWQ	BZ			EP		2034	23.99								
RCY	SZ			EP		2034	26.51								
BHL	BZ			EP		2034	26.69								
DQRL	SZ			EP		2034	27.84								

**April 20 2010 Hour: 5:3 4.2**

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		5	3	26.17							
HWQ	BZ			EP		5	3	25.04							

**April 20 2010 Hour: 8:40 53.2**

Lat: 34.42N Lon: 36.62E Depth: 0 Agency: REL Local

**Magnitudes: 2.9MC REL**

Rms: 0.3 secs

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	27	225	EP		840	57.15	-0.45	50						1.0
HWQ	BZ	64	256	EP		841	3.42	-0.08							1.0
HWQ	BN	64	256	ES		841	11.22	0.09							1.0
RCY	SZ	125	216	EP		841	13.84	0.43							1.0
RCY	SN	125	216	ES		841	28.31	-0.07							1.0
DQRL	SZ	125	231	EP		841	13.44	0.07							1.0

**April 20 2010 Hour: 9:53 16.4**

Lat: 34.44N Lon: 36.68E 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	33	228	EP		953	21.29	-0.50	67						1.0
HWQ	BZ	70	255	EP		953	28.40	0.69							1.0
HWQ	BN	70	255	ES		953	35.57	-0.51							1.0
BHL	BZ	112	238	EP		953	34.60	0.12							1.0
RCY	SZ	131	217	EP		953	37.40	-0.13							1.0
DQRL	SZ	131	232	EP		953	37.42	-0.16							1.0
DQRL	SN	131	232	ES		953	53.73	0.48							1.0

**April 20 2010 Hour: 10:36 13.3**

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1037	19.43								
FKH	SZ			EP		1037	12.16								

**April 20 2010 Hour: 14:10 19.8**

Lat: 34.12N Lon: 35.47E Depth: 15 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	29	144	EP		1410	25.19	0.02	44						1.0
DQRL	SZ	47	168	EP		1410	27.62	-0.08							1.0
DQRL	SE	47	168	ES		1410	33.52	0.00							1.0
HWQ	BZ	47	68	EP		1410	27.80	-0.02							1.0
RCY	SZ	77	154	EP		1410	32.26	0.11							1.0

RCY SN 77 154 ES 1410 41.24-0.03 1.0

**April 20 2010 Hour: 17:43 27.5 Agency: REL Regional**

**EMSC OT=17:43:27.5 33.73N 32.50E 2Km ML=3.4 EAST MED SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1744		9.76							
BHL	BZ			EP		1744		9.12							
HWQ	SZ			EP		1744		13.26							

**April 21 2010 Hour: 13:25 25.7 Lat: 33.76N Lon: 35.81E Depth: 84 Agency: REL Local Magnitudes: 3.0MC REL**

**CENTRAL BEKAA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	22	317	EP		1325	37.48	-0.02							0.2
DQRL	SZ	23	255	EP		1325	37.55	0.00	57						1.0
RCY	SZ	29	176	EP		1325	37.85	0.00							1.0
RCY	SN	29	176	ES		1325	46.87	0.00							1.0
HWQ	BZ	59	12	EP		1325	39.58	0.00							1.0
HWQ	BE	59	12	ES		1325	49.88	0.00							1.0

**April 21 2010 Hour: 13:56 55.8 Lat: 34.38N Lon: 36.62E Depth: 5 Agency: REL Local Magnitudes: 2.8MC REL**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	63	260	EP		1357	6.09	0.07	44						1.0
HWQ	BN	63	260	ES		1357	13.52	-0.04							1.0
BHL	BZ	103	239	EP		1357	12.56	0.01							1.0
DQRL	SZ	122	232	EP		1357	15.38	0.01							1.0
RCY	SZ	122	217	EP		1357	15.26	-0.08							1.0
RCY	SN	122	217	ES		1357	29.81	0.04							1.0

**April 21 2010 Hour: 16:24 33.6 Lat: 34.33N Lon: 36.14E Depth: 11 Agency: REL Local Magnitudes: 2.8MC REL**

**NORTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	19	251	EP		1624	37.20	-0.03	48						1.0
HWQ	BN	19	251	ES		1624	39.93	0.00							1.0
FKH	SZ	27	111	EP		1624	38.45	0.05							1.0
FKH	SN	27	111	ES		1624	41.93	-0.03							1.0
BHL	BZ	65	223	EP		1624	44.35	0.05							1.0
DQRL	SZ	87	217	EP		1624	47.51	-0.03							1.0
RCY	SZ	97	197	EP		1624	49.01	0.00							1.0

**April 23 2010 Hour: 16:32 16.5 Lat: 33.73N Lon: 35.72E Depth: 15 Agency: REL Local Magnitudes: 2.6MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	14	260	EP		1632	20.18	0.32							1.0
DQRL	SN	14	260	ES		1632	22.21	-0.14							1.0
BHL	BZ	21	344	EP		1632	20.33	-0.32	33						1.0
RCY	SZ	28	156	EP		1632	21.94	0.27							1.0
RCY	SE	28	156	ES		1632	25.24	-0.26							1.0
HWQ	BZ	65	19	EP		1632	27.15	0.13							1.0

**April 23 2010 Hour: 16:32 57.1 Lat: 33.76N Lon: 35.78E Depth: 8 Agency: REL Local Magnitudes: 2.5MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	20	323	EP		1633	0.56	-0.06							1.0
DQRL	SZ	21	252	EP		1633	0.74	-0.02	30						1.0
DQRL	SN	21	252	ES		1633	3.50	0.04							1.0
RCY	SZ	30	170	EP		1633	2.18	-0.01							1.0
RCY	SE	30	170	ES		1633	5.94	0.00							1.0
HWQ	BZ	59	15	EP		1633	6.83	0.05							1.0

**April 23 2010 Hour: 18:42 18.2** Agency: REL Regional  
**EMSC OT=18:42:18.2 36.20N 32.27E 20Km ML=3.3 CENTRAL TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1843	13.64								
RCY	SZ			EP		1843	19.60								

**April 24 2010 Hour: 11: 5 53.6** Lat: 34.37N Lon: 35.83E Depth: 7 Agency: REL Local Rms: 0.0 secs  
**Magnitudes: 2.7MC REL**

**NORTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	15	134	EP		11	5	56.40	0.00	41					1.0
HWQ	BN	15	134	ES		11	5	58.50	0.00						1.0
BHL	BZ	54	197	EP		11	6	2.37	-0.08						1.0
DQRL	SZ	78	198	EP		11	6	6.27	0.09						1.0
RCY	SZ	97	180	EP		11	6	9.27	-0.01						1.0
RCY	SE	97	180	ES		11	6	20.91	0.00						1.0

**April 24 2010 Hour: 13: 1 56.6** Lat: 33.79N Lon: 35.77E Depth: 3 Agency: REL Local Rms: 0.0 secs  
**Magnitudes: 2.8MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	320	EP		13	1	59.31	-0.02	48					1.0
DQRL	SZ	21	243	EP		13	2	0.02	0.02						1.0
RCY	SZ	33	169	EP		13	2	1.97	-0.06						1.0
RCY	SN	33	169	ES		13	2	6.08	0.03						1.0
HWQ	BZ	56	17	EP		13	2	5.77	0.04						1.0
HWQ	BN	56	17	ES		13	2	12.47	-0.01						1.0

**April 24 2010 Hour: 15: 1 11.4** Agency: REL Regional  
**EMSC OT=15:01:11.4 34.20N 26.04E 30Km mb=5.2 CRETE, GREECE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		15	3	2.71							
BHL	BZ			EP		15	3	2.82							
RCY	SZ			EP		15	3	5.36							
HWQ	BZ			EP		15	3	6.91							
FKH	SZ			EP		15	3	11.99							

**April 24 2010 Hour: 16:42 22.9** Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1645	47.90								
FKH	SZ			EP		1645	51.05								
BHL	BZ			EP		1645	57.08								

**April 25 2010 Hour: 2:25 58.7** Agency: REL Regional  
**EMSC OT=02:25:58.7 34.73N 32.50E 2Km ML=3.7 CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		226	42.24								
BHL	BZ			EP		226	42.07								
HWQ	BZ			EP		226	44.11								
RCY	SZ			EP		226	46.59								
FKH	SZ			EP		226	50.27								

**April 25 2010 Hour: 19: 9 17.7** Lat: 33.24N Lon: 35.34E Depth: 3 Agency: REL Local Rms: 0.1 secs  
**Magnitudes: 2.7MC REL**

**SOUTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	54	58	EP		19	9	26.42	0.05	36					1.0
RCY	SE	54	58	ES		19	9	32.76	-0.03						1.0
DQRL	SZ	55	22	EP		19	9	26.69	0.05						1.0
DQRL	SN	55	22	ES		19	9	33.30	0.03						1.0
BHL	BZ	79	21	EP		19	9	30.29	-0.11						1.0
HWQ	BZ	128	26	EP		19	9	38.25	0.07						0.2

**April 26 2010 Hour: 1:53 13.4** Lat: 33.01N Lon: 36.13E Depth: 5 Agency: REL Local  
**Magnitudes: 2.8MC REL**

**NORTH GALILEE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	60	333	EP		153	23.24	0.06	41						1.0
RCY	SN	60	333	ES		153	30.42	0.01							1.0
DQRL	SZ	93	326	EP		153	28.35	-0.07							1.0
DQRL	SN	93	326	ES		153	39.52	-0.01							1.0
BHL	BZ	108	336	EP		153	30.95	0.05							1.0
HWQ	BZ	141	353	EP		153	35.71	-0.04							1.0

**April 26 2010 Hour: 2:59 49.3** Agency: REL Distant  
**EMSC OT=02:59:49.3 22.27N 123.79E 2Km Mw=6.5 SOUTHEAST TAIWAN**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		311	36.41								
HWQ	BZ			EP		311	38.81								
RCY	SZ			EP		311	40.55								
BHL	BZ			EP		311	40.67								
DQRL	SZ			EP		311	41.89								

**April 26 2010 Hour: 15:49 45.4** Lat: 33.98N Lon: 36.17E Depth: 11 Agency: REL Local  
**Magnitudes: 3.0MC REL**

**HERMEL BAALBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	37	36	EP		1549	51.63	0.00	63						1.0
HWQ	BZ	40	328	EP		1549	52.10	0.05							1.0
HWQ	BN	40	328	ES		1549	56.99	-0.02							1.0
BHL	BZ	49	261	EP		1549	53.41	-0.07							1.0
RCY	SZ	62	211	EP		1549	55.49	-0.06							1.0
RCY	SN	62	211	ES		1550	3.12	0.03							1.0
DQRL	SZ	64	242	EP		1549	55.87	0.07							1.0

**April 26 2010 Hour: 16:30 56.8** Lat: 33.79N Lon: 35.77E Depth: 8 Agency: REL Local  
**Magnitudes: 2.9MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	321	EP		1630	59.79	0.00	54						1.0
BHL	BN	16	321	ES		1631	2.01	-0.01							1.0
DQRL	SZ	20	243	EP		1631	0.43	0.06							1.0
RCY	SZ	33	169	EP		1631	2.27	-0.06							1.0
RCY	SN	33	169	ES		1631	6.46	0.01							1.0
HWQ	BZ	57	17	EP		1631	6.02	-0.01							1.0
FKH	SZ	78	50	EP		1631	9.47	0.03							1.0

**April 27 2010 Hour: 5:34 1.9** Lat: 33.79N Lon: 35.78E Depth: 6 Agency: REL Local  
**Magnitudes: 2.9MC REL**

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	318	EP		534	4.95	-0.03							1.0
DQRL	SZ	21	244	EP		534	5.62	0.01	52						1.0
DQRL	SN	21	244	ES		534	8.34	0.01							1.0
RCY	SZ	33	171	EP		534	7.41	-0.01							1.0
HWQ	BZ	56	16	EP		534	11.12	0.00							1.0
HWQ	BN	56	16	ES		534	17.93	0.01							1.0

**April 28 2010 Hour: 8:58 58.1** Lat: 34.35N Lon: 36.72E Depth: 2 Agency: REL Local  
**Magnitudes: 2.8MC REL**

**NEBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	72	264	EP		859	9.63	-0.03	43						1.0
HWQ	BE	72	264	ES		859	18.24	0.02							1.0
RCY	SZ	125	221	EP		859	18.25	0.03							1.0
RCY	SE	125	221	ES		859	33.11	-0.02							1.0

DQRL SZ 128 236 EP 859 18.63 0.00 1.0

**April 28 2010 Hour: 15:27 16.5 Lat: 33.83N Lon: 35.88E 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	22	293	EP		1527	20.11	-0.02							1.0
BHL	BN	22	293	ES		1527	22.78	-0.02							1.0
DQRL	SZ	31	245	EP		1527	21.66	0.07							1.0
RCY	SZ	37	186	EP		1527	22.39	-0.06	33						1.0
RCY	SE	37	186	ES		1527	26.86	0.01							1.0
HWQ	BZ	51	7	EP		1527	24.69	0.02							1.0

**April 28 2010 Hour: 15:29 51.8 Lat: 34.05N Lon: 35.71E Depth: 0 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	17	198	EP		1529	54.51	-0.02	31						1.0
BHL	BE	17	198	ES		1529	56.54	0.01							1.0
HWQ	BZ	34	41	EP		1529	57.24	0.01							1.0
HWQ	BN	34	41	ES		1530	1.24	0.00							1.0
DQRL	SZ	40	199	EP		1529	58.30	0.01							1.0

**April 28 2010 Hour: 16:35 8.0**

**Agency: REL Regional**

**EMSC OT=16:35:08.0 36.30N 27.67E 15Km mb=4.4 DODECANESE ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1636	47.33								
DQRL	SZ			EP		1636	48.27								
HWQ	BZ			EP		1636	50.14								
RCY	SZ			EP		1636	53.28								

**April 28 2010 Hour: 17:17 18.6 Lat: 33.79N Lon: 35.75E Depth: 8 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	326	EP		1717	21.53	-0.07							1.0
DQRL	SZ	19	241	EP		1717	22.15	0.10	44						1.0
DQRL	SN	19	241	ES		1717	24.55	-0.02							1.0
RCY	SZ	33	166	EP		1717	24.08	-0.16							1.0
RCY	SN	33	166	ES		1717	28.48	0.09							1.0
HWQ	BZ	57	19	EP		1717	28.10	0.07							1.0

**April 29 2010 Hour: 10:32 55.2**

**Agency: REL Regional**

**EMSC OT=10:32:55.2 35.70N 27.49E 10Km mb=4.3 DODECANESE ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1034	40.11								
HWQ	BZ			EP		1034	38.81								

# Epicentral Map of Lebanon

## APRIL 2010

