

Republic of Lebanon  
National Council for Scientific Research

# Provisional Seismological Bulletin

from the

## NATIONAL SEISMIC NETWORK

May

2010

Prepared by  
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## GENERAL BULLETIN INFORMATION

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

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

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

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

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

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

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

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

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

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

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

## STATIONS USED

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

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

STATION	LATITUDE	LONGITUDE	HEIGHT (m)	NAME	COMMENTS
BHL	3354.25N	3539.25E	1000	BHANNES	Opened May 1980
HWQ	3416.68N	3556.78E	1161	HAWQA	Opened Jan 2001
MATL	3329.32N	3519.78E	5	MATARIH	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 ( $0.5 * (\text{peak to peak})$ ), (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.

May 1 2010 Hour: 4:56 49.1 Lat: 33.54N Lon: 35.87E Depth: 0 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.0 secs

**MOUNT HERMON REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	6	210	EP		456	50.11	-0.02	36						1.0
DQRL	SZ	33	303	EP		456	54.49	0.03							1.0
DQRL	SE	33	303	ES		456	58.42	0.02							1.0
BHL	BZ	45	334	EP		456	56.26	-0.08							1.0
BHL	BN	45	334	ES		457	1.65	-0.02							1.0
HWQ	BZ	82	5	EP		457	2.38	0.06							1.0

May 2 2010 Hour: 9:31 20.1 Lat: 33.34N Lon: 35.44E Depth: 2 Agency: REL Local  
Magnitudes: 2.7MC 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	41	64	EP		931	26.74	-0.01	38						1.0
RCY	SE	41	64	ES		931	31.66	0.01							1.0
DQRL	SZ	43	16	EP		931	26.95	-0.09							1.0
DQRL	SN	43	16	ES		931	32.19	0.04							1.0
BHL	BZ	66	17	EP		931	30.83	0.04							1.0
HWQ	BZ	114	24	EP		931	38.67	0.07							1.0
HWQ	BN	114	24	ES		931	52.22	-0.05							1.0

May 2 2010 Hour: 10:31 2.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1032	23.11								
DQRL	SZ			EP		1032	27.70								

May 2 2010 Hour: 10:52 32.5 Lat: 34.29N Lon: 36.45E Depth: 0 Agency: REL Local  
Magnitudes: 2.9MC REL Rms: 0.1 secs

**HERMEL BAALBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	6	216	EP		1052	33.21	-0.36	57						0.2
HWQ	BZ	46	268	EP		1052	40.00	-0.02							1.0
HWQ	BN	46	268	ES		1052	45.56	-0.01							1.0
BHL	BZ	85	240	EP		1052	46.21	-0.05							1.0
DQRL	SZ	104	232	EP		1052	49.46	0.14							1.0
DQRL	SN	104	232	ES		1053	1.69	-0.05							1.0

May 2 2010 Hour: 12:24 37.0 Agency: REL Regional  
EMSC OT=12:24:37.0 35.61N 24.69E 89Km mb=4.5 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1226	44.29								
BHL	BZ			EP		1226	44.47								
HWQ	BZ			EP		1226	47.24								
RCY	SZ			EP		1226	47.80								

May 2 2010 Hour: 12:50 11.5 Lat: 33.02N Lon: 35.77E Depth: 0 Agency: REL Local  
Magnitudes: 2.9MC 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	54	6	EP		1250	20.06	-0.06	53						1.0
RCY	SN	54	6	ES		1250	26.55	0.03							1.0
DQRL	SZ	79	346	EP		1250	24.20	0.03							1.0
DQRL	SN	79	346	ES		1250	33.53	-0.03							1.0
BHL	BZ	99	354	EP		1250	27.49	0.04							1.0
HWQ	BZ	141	7	EP		1250	34.08	0.00							1.0

May 2 2010 Hour: 13:1 0.1 Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 RCY SZ EP 13 2 1.76  
 DQRL SZ EP 13 2 2.59

May 3 2010 Hour: 8:29 9.4 Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 830 10.51  
 HWQ BZ EP 830 16.00

May 3 2010 Hour: 10:27 43.9 Agency: REL Distant  
**EMSC OT=10:27:43.9 29.68N 141.07E 70Km Mw=6.1 IZU ISLANDS**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 1040 10.42  
 HWQ BZ EP 1040 11.35  
 DQRL SZ EP 1040 14.68  
 RCY SZ EP 1040 14.46

May 5 2010 Hour: 5:10 49.0 Lat: 32.94N Lon: 35.10E Depth: 12 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  
 RCY SZ 92 48 EP 511 3.58-0.03 31 1.0  
 RCY SN 92 48 ES 511 14.43 0.02 1.0  
 DQRL SZ 95 27 EP 511 4.05 0.00 1.0  
 HWQ BZ 167 28 EP 511 14.66 0.03 1.0  
 HWQ BN 167 28 ES 511 33.58-0.02 1.0

May 5 2010 Hour: 8:55 25.0 Lat: 34.44N Lon: 36.74E Depth: 0 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 37 235 EP 855 30.75-0.20 60 1.0  
 FKH SN 37 235 ES 855 35.37 0.02 1.0  
 HWQ BZ 75 257 EP 855 37.17 0.10 1.0  
 HWQ BN 75 257 ES 855 45.98-0.01 1.0  
 RCY SZ 133 219 EP 855 46.65 0.11 1.0  
 DQRL SZ 135 233 EP 855 46.69-0.02 1.0

May 5 2010 Hour: 10:24 50.3 Lat: 33.79N Lon: 35.76E Depth: 3 Agency: REL Local  
 Magnitudes: 2.9MC REL Rms: 0.0 secs  
**BEIRUT REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ 17 322 EP 1024 53.11 0.01 1.0  
 DQRL SZ 20 244 EP 1024 53.68 0.03 1.0  
 DQRL SE 20 244 ES 1024 56.08-0.02 1.0  
 RCY SZ 33 168 EP 1024 55.67-0.01 53 1.0  
 RCY SN 33 168 ES 1024 59.65 0.01 1.0  
 HWQ BZ 57 17 EP 1024 59.55-0.01 1.0

May 5 2010 Hour: 12:37 16.0 Lat: 33.25N Lon: 35.24E Depth: 7 Agency: REL Local  
 Magnitudes: 2.9MC REL Rms: 0.1 secs  
**SOUTH LEBANON**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 DQRL SZ 59 31 EP 1237 25.47-0.14 52 1.0  
 DQRL SN 59 31 ES 1237 32.77 0.08 1.0  
 RCY SZ 62 64 EP 1237 26.12 0.07 1.0  
 RCY SE 62 64 ES 1237 33.42-0.04 1.0  
 BHL BZ 82 28 EP \*1237 29.40 0.10 0.0  
 HWQ BZ 131 30 EP 1237 36.86 0.07 1.0  
 HWQ BN 131 30 ES 1237 52.09-0.04 1.0

May 5 2010 Hour: 15:52 47.4 Lat: 34.62N Lon: 36.49E Depth: 0 Agency: REL Local  
 Magnitudes: 2.8MC REL Rms: 0.0 secs

HERMEL BAALBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	42	190	EP		1552	54.16	0.00	45						1.0
FKH	SZ	42	190	ES		1552	59.13	0.00							1.0
HWQ	BZ	62	233	EP		1552	57.43	-0.01							1.0
HWQ	BZ	62	233	ES		1553	4.86	0.00							1.0
BHL	BZ	110	224	EP		1553	5.18	0.02							0.2
DQRL	SZ	132	220	EP		1553	8.78	0.13							0.2

May 6 2010 Hour: 14:25 44.8 Lat: 33.90N Lon: 35.82E 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	15	271	EP		1425	47.24	-0.01							1.0
BHL	BN	15	271	ES		1425	49.08	0.00							1.0
DQRL	SZ	32	227	EP		1425	49.95	0.06							1.0
DQRL	SN	32	227	ES		1425	53.64	-0.03							1.0
HWQ	BZ	43	16	EP		1425	51.78	0.00							1.0
RCY	SZ	45	178	EP		1425	51.99	-0.03	43						1.0
RCY	SN	45	178	ES		1425	57.40	0.01							1.0

May 6 2010 Hour: 17:32 5.6 Lat: 33.80N Lon: 35.77E Depth: 4 Agency: REL Local  
 Magnitudes: 2.9MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	318	EP		1732	8.40	0.00							1.0
BHL	BN	16	318	ES		1732	10.43	0.00							1.0
DQRL	SZ	21	242	EP		1732	9.14	-0.02	52						1.0
DQRL	SN	21	242	ES		1732	11.76	0.01							1.0
RCY	SZ	34	170	EP		1732	11.18	0.01							1.0
RCY	SE	34	170	ES		1732	15.24	-0.01							1.0
HWQ	BZ	56	17	EP		1732	14.72	0.01							1.0

May 7 2010 Hour: 9:59 2.5 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		10	0	56.13							
FKH	SZ			EP		10	0	53.98							

May 7 2010 Hour: 15:9 33.1 Lat: 34.60N Lon: 36.38E Depth: 0 Agency: REL Local  
 Magnitudes: 2.8MC 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	39	176	EP		15	9	39.41	43						1.0
FKH	SN	39	176	ES		15	9	44.05	-0.01						1.0
HWQ	BZ	54	229	EP		15	9	41.69	-0.03						1.0
HWQ	BE	54	229	ES		15	9	48.12	0.01						1.0
BHL	BZ	102	221	EP		15	9	49.54	0.00						0.2
DQRL	SZ	124	217	EP		15	9	53.31	0.21						0.2

May 8 2010 Hour: 11:14 33.0 Lat: 34.38N Lon: 36.78E Depth: 3 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	77	261	EP		1114	45.43	-0.07	62						1.0
HWQ	BN	77	261	ES		1114	54.75	0.00							1.0
BHL	BZ	117	243	EP		1114	51.86	0.06							1.0
RCY	SZ	132	222	EP		1114	53.99	-0.07							1.0
RCY	SN	132	222	ES		1115	9.64	-0.01							1.0
DQRL	SZ	135	236	EP		1114	54.57	0.09							1.0

May 8 2010 Hour: 11:25 6.3 Lat: 33.79N Lon: 35.77E Depth: 0 Agency: REL Local  
Magnitudes: 2.9MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	320	EP		1125	9.03	0.01							1.0
BHL	BE	17	320	ES		1125	11.01	-0.02							1.0
DQRL	SZ	21	244	EP		1125	9.69	0.04							1.0
DQRL	SN	21	244	ES		1125	12.12	-0.01							1.0
RCY	SZ	33	169	EP		1125	11.61	-0.02	54						1.0
HWQ	BZ	57	17	EP		1125	15.45	-0.01							1.0
HWQ	BE	57	17	ES		1125	22.25	0.02							1.0

May 9 2010 Hour: 0:29 13.0 Lat: 34.22N Lon: 34.88E Depth: 17 Agency: REL Local  
Magnitudes: 3.0MC 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	80	116	EP		029	25.80	0.00							1.0
DQRL	SZ	86	132	EP		029	26.56	-0.12							1.0
DQRL	SE	86	132	ES		029	36.86	0.06							1.0
MATL	SZ	92	153	EP		029	27.44	0.01							1.0
HWQ	BZ	99	86	EP		029	28.57	0.01	52						1.0
RCY	SZ	120	132	EP		029	31.78	0.10							1.0
RCY	SN	120	132	ES		029	45.43	-0.06							1.0

May 9 2010 Hour: 5:59 43.3 Agency: REL Distant  
EMSC OT=05:59:43.3 03.75N 96.05E 48Km Mw=7.2 NORTHERN SUMATRA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		610	6.65								
RCY	SZ			EP		610	8.86								
HWQ	BZ			EP		610	9.30								
BHL	BZ			EP		610	10.31								
DQRL	SZ			EP		610	10.51								

May 9 2010 Hour: 7:57 7.2 Lat: 33.83N Lon: 35.78E Depth: 32 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	305	EP		757	12.70	0.00							1.0
DQRL	SZ	24	235	EP		757	13.34	-0.08							1.0
DQRL	SE	24	235	ES		757	18.10	0.05							1.0
RCY	SZ	37	173	EP		757	14.91	0.08	59						1.0
RCY	SN	37	173	ES		757	20.45	-0.05							1.0
HWQ	BZ	52	17	EP		757	16.63	0.01							0.2

May 10 2010 Hour: 7:43 3.5 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		743	34.58								
FKH	SZ			EP		743	33.65								

May 10 2010 Hour: 9:40 7.1 Lat: 34.45N Lon: 36.84E Depth: 0 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	46	240	EP		940	14.41	-0.07	62						1.0
HWQ	BZ	84	257	EP		940	20.70	-0.02							1.0
HWQ	BN	84	257	ES		940	30.80	0.03							1.0
BHL	BZ	125	241	EP		940	27.37	0.10							0.2
RCY	SZ	141	221	EP		940	29.84	0.07							1.0
RCY	SN	141	221	ES		940	46.49	-0.02							1.0
DQRL	SZ	143	235	EP		940	30.15	0.03							0.2



May 10 2010 Hour: 11:36 17.4 Agency: REL Local  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ EP 1136 44.44  
 HWQ BZ EP 1136 51.39

May 10 2010 Hour: 18:2 5.1 Agency: REL Regional  
**EMSC OT=18:02:05.1 34.44N 30.83E 40Km ML=3.9 EASTERN MED SEA**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 DQRL SZ EP 18 3 3.07  
 BHL BZ EP 18 3 3.86  
 RCY SZ EP 18 3 7.00  
 HWQ BZ EP 18 3 7.11

May 11 2010 Hour: 10:14 42.9 Lat: 34.40N Lon: 36.78E Depth: 0 Agency: REL Local  
 Magnitudes: 2.8MC 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 38 244 EP 1014 48.96-0.06 45 1.0  
 HWQ BZ 78 261 EP 1014 55.44-0.01 1.0  
 HWQ BN 78 261 ES 1015 4.78 0.03 1.0  
 RCY SZ 133 221 EP 1015 4.36 0.08 1.0  
 RCY SE 133 221 ES 1015 20.08-0.02 1.0  
 DQRL SZ 135 236 EP 1015 4.65-0.02 1.0

May 11 2010 Hour: 14:23 27.4 Agency: REL Regional  
**EMSC OT=14:23:27.4 34.82N 34.24E 10Km ML=3.5 CYPRUS REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ EP 1423 53.78  
 HWQ BZ EP 1423 55.33  
 DQRL SZ EP 1423 55.47  
 RCY SZ EP 1423 59.79  
 FKH SZ EP 1424 0.79

May 13 2010 Hour: 14:9 2.3 Lat: 33.80N Lon: 35.78E Depth: 8 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 17 314 EP 14 9 5.45 0.03 1.0  
 DQRL SZ 22 242 EP 14 9 6.25 0.02 1.0  
 DQRL SN 22 242 ES 14 9 9.09-0.03 1.0  
 RCY SZ 34 172 EP 14 9 8.02 0.01 56 1.0  
 RCY SN 34 172 ES 14 9 12.22 0.00 1.0  
 HWQ BZ 55 16 EP 14 9 11.34-0.03 1.0

May 14 2010 Hour: 12:29 22.3 Agency: REL Distant  
**EMSC OT=12:29:22.3 35.90N 04.12E 2Km mb=5.2 NORTHERN ALGERIA**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1234 58.62  
 BHL BZ EP 1234 56.77

May 14 2010 Hour: 12:56 37.0 Lat: 33.91N Lon: 35.83E Depth: 0 Agency: REL Local  
 Magnitudes: 2.9MC REL Rms: 0.0 secs  
**BEIRUT REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 BHL BZ 17 267 EP 1256 39.61-0.04 1.0  
 BHL BN 17 267 ES 1256 41.59-0.03 1.0  
 DQRL SZ 33 227 EP 1256 42.46 0.08 1.0  
 DQRL SN 33 227 ES 1256 46.40 0.03 1.0  
 HWQ BZ 42 15 EP 1256 43.73 0.01 1.0  
 RCY SZ 46 180 EP 1256 44.44 0.00 52 1.0  
 RCY SN 46 180 ES 1256 49.92-0.04 1.0

May 14 2010 Hour: 18:34 38.6 Agency: REL Distant  
**EMSC OT=18:49:56.0 29.35N 51.59E 18Km mb=5.1 SOUTHERN IRAN**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1853 15.40  
 BHL BZ EP 1853 15.67  
 DQRL SZ EP 1853 17.54

May 15 2010 Hour: 11: 9 47.2 Lat: 34.55N Lon: 36.58E Depth: 16 Agency: REL Local  
 Magnitudes: 3.5MC 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 37 205 EP 11 9 53.71-0.02 1.0  
 FKH SN 37 205 ES 11 9 58.56 0.00 1.0  
 HWQ BZ 66 243 EP 11 9 57.83-0.02 118 1.0  
 HWQ BN 66 243 ES 1110 5.68-0.06 1.0  
 BHL BZ 111 230 EP 1110 4.59 0.02 1.0  
 DQRL SZ 132 225 EP 1110 7.64 0.03 1.0  
 RCY SZ 136 211 EP 1110 8.11-0.05 104 1.0  
 MALT SZ 449 21 EP 1110 47.21-0.02 1.0

May 15 2010 Hour: 11:58 1.2 Lat: 33.33N Lon: 35.32E Depth: 0 Agency: REL Local  
 Magnitudes: 2.7MC REL Rms: 0.0 secs  
**SOUTH LEBANON**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 DQRL SZ 48 29 EP 1158 8.91-0.02 1.0  
 DQRL SN 48 29 ES 1158 14.68 0.00 1.0  
 RCY SZ 52 68 EP 1158 9.47-0.02 39 1.0  
 RCY SE 52 68 ES 1158 15.65 0.01 1.0  
 BHL BZ 71 26 EP 1158 12.71 0.04 1.0  
 HWQ BZ 120 29 EP 1158 20.60-0.01 1.0  
 HWQ BN 120 29 ES 1158 34.98-0.01 1.0

May 15 2010 Hour: 15:18 4.7 Agency: REL Distant  
**EMSC OT=15:18:04.7 23.45S 176.57W 10Km mb=5.9 SOUTH OF FIJI ISLS**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1537 54.99  
 RCY SZ EP 1537 54.99  
 BHL BZ EP 1537 55.81  
 DQRL SZ EP 1537 56.46

May 15 2010 Hour: 16:22 55.4 Lat: 33.97N Lon: 36.18E Depth: 5 Agency: REL Local  
 Magnitudes: 3.1MC REL Rms: 0.0 secs  
**HERMEL BAALBEK REGION**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 FKH SZ 37 35 EP 1623 1.35-0.06 65 1.0  
 FKH SN 37 35 ES 1623 5.87 0.01 1.0  
 HWQ BZ 40 327 EP 1623 2.02 0.08 1.0  
 BHL BZ 49 261 EP 1623 3.38-0.04 1.0  
 RCY SZ 62 211 EP 1623 5.50 0.05 67 1.0  
 RCY SN 62 211 ES 1623 12.90 0.01 1.0  
 DQRL SZ 64 242 EP 1623 5.74-0.02 1.0  
 DQRL SN 64 242 ES 1623 13.40-0.03 1.0

May 16 2010 Hour: 0:33 8.9 Agency: REL Distant  
**EMSC OT=00:33:08.9 00.50N 124.65E 144Km mb=5.7 MINAHASA**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 045 46.45  
 RCY SZ EP 045 47.32  
 BHL BZ EP 045 47.66  
 DQRL SZ EP 045 47.93

May 16 2010 Hour: 16:13 23.0 Agency: REL Regional  
**EMSC OT=16:13:23.0 36.19N 36.04E 2Km ML=3.1 TURKEY-SYRIA REG**  
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT  
 HWQ BZ EP 1613 56.31  
 BHL BZ EP 1614 1.88  
 DQRL SZ EP 1614 4.81

May 16 2010 Hour: 17:41 22.2 Lat: 33.79N Lon: 35.77E Depth: 0 Agency: REL Local  
 Magnitudes: 2.9MC REL Rms: 0.0 secs  
**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	320	EP		1741	24.93	-0.04							1.0
DQRL	SZ	21	245	EP		1741	25.58	0.02	50						1.0
DQRL	SN	21	245	ES		1741	28.07	0.01							1.0
RCY	SZ	33	170	EP		1741	27.49	0.03							1.0
RCY	SE	33	170	ES		1741	31.31	-0.04							1.0
HWQ	BZ	57	16	EP		1741	31.38	0.02							1.0

May 17 2010 Hour: 22:3 47.7 Agency: REL Distant  
**EMSC OT=22:03:47.7 46.33N 152.06E 74Km Mw=5.3 KURIL ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2215	56.01								
BHL	BZ			EP		2215	58.78								
DQRL	SZ			EP		2216	0.32								
RCY	SZ			EP		2216	0.38								

May 18 2010 Hour: 15:46 58.1 Lat: 34.06N Lon: 36.17E Depth: 0 Agency: REL Local  
 Magnitudes: 2.7MC REL Rms: 0.1 secs  
**HERMEL BAALBEK REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	33	320	EP		1547	3.36	0.00	38						1.0
HWQ	BN	33	320	ES		1547	7.18	-0.06							1.0
BHL	BZ	51	251	EP		1547	6.47	0.13							1.0
DQRL	SZ	68	235	EP		1547	9.18	0.08							1.0
DQRL	SN	68	235	ES		1547	17.19	-0.04							1.0
RCY	SZ	70	207	EP		1547	9.26	-0.07							1.0
RCY	SN	70	207	ES		1547	17.59	-0.04							1.0

May 19 2010 Hour: 16:32 55.8 Lat: 33.79N 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	18	315	EP		1632	58.62	-0.06							1.0
DQRL	SZ	22	246	EP		1632	59.34	-0.05							1.0
DQRL	SN	22	246	ES		1633	2.14	0.07							1.0
RCY	SZ	33	173	EP		1633	1.03	-0.01	45						1.0
RCY	SN	33	173	ES		1633	4.95	0.00							1.0
HWQ	BZ	56	15	EP		1633	4.89	0.06							1.0

May 20 2010 Hour: 10:58 50.8 Lat: 34.35N Lon: 36.71E Depth: 0 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	30	247	EP		1058	55.39	-0.24	57						1.0
HWQ	BZ	71	264	EP		1059	2.27	0.05							1.0
HWQ	BN	71	264	ES		1059	10.67	0.04							1.0
RCY	SZ	124	221	EP		1059	10.99	0.11							1.0
RCY	SN	124	221	ES		1059	25.65	-0.05							1.0
DQRL	SZ	127	236	EP		1059	11.38	0.06							1.0
DQRL	SN	127	236	ES		1059	26.49	0.02							1.0

May 21 2010 Hour: 5:18 41.2 Lat: 33.78N Lon: 35.77E Depth: 0 Agency: REL Local  
 Magnitudes: 3.1MC REL Rms: 0.0 secs

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	321	EP		518	43.93	-0.04							1.0
DQRL	SZ	20	245	EP		518	44.51	0.00							1.0
DQRL	SN	20	245	ES		518	46.95	0.01							1.0
BEYL	BZ	27	291	EP		518	45.62	-0.01							1.0
RCY	SZ	33	169	EP		518	46.46	0.00	65						1.0
RCY	SN	33	169	ES		518	50.33	-0.01							1.0
HWQ	BZ	57	17	EP		518	50.48	0.04							1.0
FKH	SZ	78	49	EP		518	53.82	-0.01							1.0

May 21 2010 Hour: 16:31 51.5 Lat: 33.80N Lon: 35.78E Depth: 13 Agency: REL Local  
 Magnitudes: 2.8MC REL Rms: 0.0 secs

**BEIRUT REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	314	EP		1631	55.00	0.00							1.0
DQRL	SZ	22	241	EP		1631	55.78	0.00							1.0
DQRL	SN	22	241	ES		1631	58.96	0.00							1.0
RCY	SZ	34	172	EP		1631	57.53	-0.01	43						1.0
RCY	SN	34	172	ES		1632	2.01	0.00							1.0
HWQ	BZ	55	16	EP		1632	0.60	0.00							1.0

May 22 2010 Hour: 2: 3 39.6 Agency: REL Regional  
 EMSC OT=02:03:39.6 38.69N 38.00E 2Km ML=3.8 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2 4	52.23								
BHL	BZ			EP		2 4	57.13								

May 22 2010 Hour: 2:30 35.5 Agency: REL Regional  
 EMSC OT=02:30:35.5 39.26N 41.31E 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		232	12.72								
BHL	BZ			EP		232	17.56								

May 22 2010 Hour: 6:43 12.4 Lat: 33.76N Lon: 35.84E Depth: 0 Agency: REL Local  
 Magnitudes: 2.6MC REL Rms: 0.1 secs

**CENTRAL BEKAA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	24	314	EP		643	16.10	-0.08							1.0
DQRL	SZ	25	257	EP		643	16.52	0.06							1.0
DQRL	SN	25	257	ES		643	19.49	0.00							1.0
RCY	SZ	29	180	EP		643	16.94	-0.09	32						1.0
RCY	SN	29	180	ES		643	20.51	0.04							1.0
HWQ	BZ	59	10	EP		643	21.91	0.06							1.0

May 22 2010 Hour: 13:21 40.1 Lat: 34.65N Lon: 36.17E Depth: 4 Agency: REL Local  
 Magnitudes: 3.1MC REL Rms: 0.0 secs

**NORTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	47	206	EP		1321	47.73	0.02	69						1.0
HWQ	BN	47	206	ES		1321	53.33	0.03							1.0
BHL	BZ	96	210	EP		1321	55.55	-0.08							1.0
DQRL	SZ	119	208	EP		1321	59.31	0.03							1.0
RCY	SZ	132	194	EP		1322	1.27	0.02							1.0
RCY	SN	132	194	ES		1322	16.84	-0.03							1.0

May 24 2010 Hour: 9: 5 11.1 Lat: 34.34N Lon: 36.58E Depth: 0 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	19	237	EP		9 5	13.85	-0.33	55						1.0
HWQ	BZ	59	264	EP		9 5	20.64	0.01							1.0
HWQ	BN	59	264	ES		9 5	27.67	0.01							1.0
RCY	SZ	116	217	EP		9 5	29.82	-0.03							1.0
RCY	SN	116	217	ES		9 5	43.70	-0.01							1.0
DQRL	SZ	117	233	EP		9 5	30.33	0.35							1.0

May 24 2010 Hour: 9:12 25.8 Lat: 34.28N Lon: 36.57E Depth: 0 Agency: REL Local  
Magnitudes: 2.9MC 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	15	255	EP		912	28.07	-0.19	50						1.0
HWQ	BZ	58	270	EP		912	35.12	0.06							1.0
HWQ	BN	58	270	ES		912	41.97	0.03							1.0
BHL	BZ	94	244	EP		912	41.17	0.18							0.2
DQRL	SZ	112	236	EP		912	43.99	0.10							1.0
DQRL	SN	112	236	ES		912	57.28	-0.02							1.0

May 24 2010 Hour: 15:37 30.3 Agency: REL Regional

EMSC OT=15:37:30.3 34.99N 32.35E 30Km ML=3.4 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1538	16.89								
HWQ	BZ			EP		1538	17.77								
RCY	SZ			EP		1538	20.11								

May 25 2010 Hour: 9:11 36.2 Lat: 34.05N Lon: 37.05E Depth: 5 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	63	290	EP		911	46.33	-0.11	57						1.0
HWQ	BZ	105	284	EP		911	53.41	0.22							1.0
HWQ	BN	105	284	ES		912	5.72	-0.04							1.0
RCY	SZ	128	242	EP		911	56.58	-0.04							1.0
RCY	SN	128	242	ES		912	11.77	0.04							1.0
DQRL	SZ	142	255	EP		911	58.59	-0.07							1.0

May 25 2010 Hour: 9:24 3.8 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		925	1.71								
FKH	SZ			EP		924	54.17								

May 25 2010 Hour: 13: 2 27.2 Lat: 33.78N Lon: 35.77E Depth: 0 Agency: REL Local  
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	322	EP		13 2	30.00	-0.02	42						1.0
BHL	BE	17	322	ES		13 2	32.06	-0.02							1.0
DQRL	SZ	20	245	EP		13 2	30.54	0.04							1.0
RCY	SZ	32	169	EP		13 2	32.42	-0.02							1.0
RCY	SE	32	169	ES		13 2	36.29	0.00							1.0
HWQ	BZ	58	17	EP		13 2	36.54	0.03							1.0

May 26 2010 Hour: 8:53 7.2 Agency: REL Distant

EMSC OT=08:53:07.2 25.81N 129.97E 2Km Mw=6.4 RYUKYU ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		9 5	13.62								
BHL	BZ			EP		9 5	15.27								
RCY	SZ			EP		9 5	16.09								
DQRL	SZ			EP		9 5	16.23								

May 26 2010 Hour: 10:02 25.7 Lat: 34.42N Lon: 36.74E Depth: 5 Agency: REL Local  
Magnitudes: 2.9MC 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	74	258	EP		10	0	37.74	-0.02		48				1.0
HWQ	BN	74	258	ES		10	0	46.69	0.01						1.0
BHL	BZ	115	241	EP		10	0	44.21	0.02						1.0
RCY	SZ	132	220	EP		10	0	46.72	0.03						1.0
RCY	SN	132	220	ES		10	1	2.19	-0.01						1.0
DQRL	SZ	134	234	EP		10	0	46.89	-0.03						1.0

May 26 2010 Hour: 14:22 20.7 Agency: REL Regional  
EMSC OT=14:22:20.7 36.71N 29.84E 2Km ML=4.4 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1423		41.57							
DQRL	SZ			EP		1423		42.26							
HWQ	BZ			EP		1423		42.87							
RCY	SZ			EP		1423		47.18							

May 26 2010 Hour: 19:33 17.9 Lat: 34.08N Lon: 35.66E Depth: 13 Agency: REL Local  
Magnitudes: 2.8MC REL Rms: 0.1 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	19	183	EP		1933		21.64	-0.08						1.0
HWQ	BZ	35	49	EP		1933		23.88	-0.04		43				1.0
HWQ	BN	35	49	ES		1933		28.41	0.04						1.0
DQRL	SZ	42	192	EP		1933		25.13	0.10						1.0
RCY	SZ	66	166	EP		1933		28.69	-0.03						1.0
RCY	SN	66	166	ES		1933		36.72	0.01						1.0

May 27 2010 Hour: 13:08 48.5 Lat: 33.55N Lon: 35.88E Depth: 0 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	8	216	EP		13	8	49.70	-0.03		35				1.0
DQRL	SZ	34	300	EP		13	8	53.97	0.05						1.0
DQRL	SN	34	300	ES		13	8	57.97	0.02						1.0
BHL	BZ	45	331	EP		13	8	55.59	-0.07						1.0
BHL	BN	45	331	ES		13	9	0.94	-0.03						1.0
HWQ	BZ	81	4	EP		13	9	1.55	0.05						1.0

May 27 2010 Hour: 17:14 49.7 Agency: REL Distant  
EMSC OT=17:14:49.7 13.63S 166.56E 51Km Mw=7.2 VANUATU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1733		56.11							
HWQ	BZ			EP		1733		55.10							

May 28 2010 Hour: 12:26 2.7 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1227		7.17							
RCY	SZ			EP		1227		5.15							

May 28 2010 Hour: 19:21 9.5 Lat: 33.46N Lon: 35.53E Depth: 0 Agency: REL Local  
Magnitudes: 3.6MC REL Rms: 0.2 secs

SAIDA REGION

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	27	7	EP		1921		13.81	-0.05						1.0
DQRL	SE	27	7	ES		1921		17.14	0.05						1.0
RCY	SZ	28	83	EP		1921		14.04	-0.03						1.0
BEYL	BZ	45	355	EP		1921		16.73	-0.09						1.0
BHL	BZ	50	13	EP		1921		17.36	-0.22		129				1.0
BHL	BN	50	13	ES		1921		23.47	-0.09						1.0

HWQ	BZ	98	23	EP		1921	25.16	-0.15											1.0
FKH	SZ	119	43	EP		1921	28.94	0.30											1.0

**May 29 2010 Hour: 1:54 16.5 Agency: REL Regional**  
**EMSC OT=01:54:16.5 35.62N 32.16E 10Km ML=2.5 CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		155	6.31								
DQRL	SZ			EP		155	7.26								
HWQ	BZ			EP		155	8.70								
RCY	SZ			EP		155	12.02								

**May 29 2010 Hour: 2:29 53.9 Agency: REL Distant**  
**EMSC OT=02:29:53.9 33.26N 96.14E 40Km Mw=5.6 SOUTHERN QINGHAI**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		238	37.19								
HWQ	BZ			EP		238	40.03								
BHL	BZ			EP		238	42.62								
DQRL	SZ			EP		238	43.26								

**May 29 2010 Hour: 7:39 21.7 Lat: 33.82N Lon: 35.77E Depth: 9 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	14	312	EP		739	24.62	0.00							1.0
DQRL	SZ	22	236	EP		739	25.69	0.00							1.0
DQRL	SN	22	236	ES		739	28.63	0.00							1.0
RCY	SZ	36	170	EP		739	27.80	0.00							1.0
RCY	SN	36	170	ES		739	32.30	0.00							1.0
HWQ	BZ	54	18	EP		739	30.62	0.05	42						0.2

**May 29 2010 Hour: 10:12 55.0 Lat: 34.37N Lon: 36.58E Depth: 6 Agency: REL Local**  
**Magnitudes: 2.9MC 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	59	261	EP		1013	4.57	-0.05	47						1.0
HWQ	BZ	59	261	ES		1013	11.73	-0.02							1.0
BHL	BZ	100	239	EP		1013	11.20	0.09							1.0
RCY	SN	119	216	ES		1013	28.00	0.00							1.0
DQRL	SZ	119	232	EP		1013	14.07	0.11							1.0
RCY	SZ	119	216	EP		1013	13.84	-0.12							1.0

**May 29 2010 Hour: 11:49 1.4 Lat: 34.34N Lon: 36.54E Depth: 28 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
HWQ	BZ	55	263	EP		1149	10.96	-0.09	51						1.0
HWQ	BN	55	263	ES		1149	18.40	0.22							1.0
BHL	BZ	95	240	EP		1149	16.30	-0.31							1.0
RCY	SZ	114	215	EP		1149	19.57	0.40							1.0
DQRL	SZ	114	232	EP		1149	19.01	-0.12							1.0
DQRL	SN	114	232	ES		1149	32.12	-0.11							1.0

**May 30 2010 Hour: 5:57 18.6 Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		558	8.75								
FKH	SZ			EP		558	6.80								

**May 30 2010 Hour: 10: 8 29.2 Lat: 33.55N Lon: 36.16E Depth: 28 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	259	EP		10	8	35.78	-0.02	38					1.0
RCY	SN	30	259	ES		10	8	40.70	0.01						1.0
DQRL	SZ	57	288	EP		10	8	39.12	0.04						1.0

DQRL	SN	57	288	ES		10	8	46.40	0.00									1.0
BHL	BZ	61	310	EP		10	8	39.53	-0.06									1.0
HWQ	BZ	83	346	EP		10	8	42.72	0.03									1.0

**May 30 2010 Hour: 10:43 1.3**

**Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1044	16.04								
RCY	SZ			EP		1044	10.92								

**May 30 2010 Hour: 11:34 57.1**

**Agency: REL Regional**

**EMSC OT=11:34:57.1 35.39N 28.55E 40Km ML=3.5 EASTERN MED SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1136	25.05								
RCY	SZ			EP		1136	25.56								

**May 30 2010 Hour: 12:46 2.6**

**Lat: 33.25N Lon: 35.39E Depth: 3 Agency: REL Local**

**Magnitudes: 2.7MC 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	49	56	EP		1246	10.61	0.01	39						1.0
RCY	SE	49	56	ES		1246	16.50	-0.01							1.0
DQRL	SZ	53	18	EP		1246	11.08	-0.10							1.0
DQRL	SN	53	18	ES		1246	17.53	0.01							1.0
BHL	BZ	76	18	EP		1246	15.03	0.09							1.0
HWQ	BZ	125	24	EP		1246	22.69	0.00							1.0

**May 30 2010 Hour: 16:56 4.6**

**Lat: 33.33N Lon: 35.41E Depth: 0 Agency: REL Local**

**Magnitudes: 2.9MC 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	44	64	EP		1656	11.66	0.04							1.0
RCY	SN	44	64	ES		1656	16.79	-0.04							1.0
DQRL	SZ	44	19	EP		1656	11.63	-0.12	50						1.0
DQRL	SN	44	19	ES		1656	17.01	-0.05							1.0
BHL	BZ	68	19	EP		1656	15.61	0.09							1.0
BHL	BN	68	19	ES		1656	23.59	-0.02							1.0
HWQ	BZ	116	25	EP		1656	23.36	-0.01							1.0
HWQ	BN	116	25	ES		1656	37.36	0.09							1.0

**May 30 2010 Hour: 18:14 15.6**

**Agency: REL Regional**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1814	20.17								
RCY	SZ			EP		1814	21.55								
BHL	BZ			EP		1814	24.32								
HWQ	BZ			EP		1814	30.89								

**May 30 2010 Hour: 19:41 15.8**

**Lat: 34.07N Lon: 35.79E Depth: 15 Agency: REL Local**

**Magnitudes: 2.7MC REL**

**Rms: 0.1 secs**

**KESROUANE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	23	214	EP		1941	20.36	0.04							1.0
HWQ	BZ	27	32	EP		1941	20.96	0.07	38						1.0
HWQ	BE	27	32	ES		1941	24.56	-0.06							1.0
DQRL	SZ	46	207	EP		1941	23.49	-0.07							1.0
RCY	SZ	64	176	EP		1941	26.35	0.03							1.0
RCY	SN	64	176	ES		1941	34.05	-0.01							1.0

**May 31 2010 Hour: 6:28 0.8**

**Agency: REL Local**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		629	12.13								
RCY	SZ			EP		629	14.23								



May 31 2010 Hour: 10:15 59.7 Agency: REL Distant

EMSC OT=10:15:59.7 06.99N 123.98E 10Km Mw=6.0 MORO GULF

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1028	33.03								
RCY	SZ			EP		1028	34.23								
BHL	BZ			EP		1028	34.50								
DQRL	SZ			EP		1028	35.22								

May 31 2010 Hour: 10:44 4.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1044	58.86								
HWQ	BZ			EP		1045	5.92								

May 31 2010 Hour: 12:3 11.1 Lat: 33.44N Lon: 35.90E Depth: 17 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
RCY	SZ	9	319	EP		12 3	14.35	-0.01	34						1.0
RCY	SN	9	319	ES		12 3	16.80	0.00							1.0
DQRL	SZ	43	314	EP		12 3	18.45	0.04							1.0
DQRL	SN	43	314	ES		12 3	23.85	0.00							1.0
BHL	BZ	57	336	EP		12 3	20.37	-0.06							1.0
HWQ	BZ	94	3	EP		12 3	25.87	0.03							1.0

May 31 2010 Hour: 14:4 43.7 Lat: 33.90N Lon: 35.82E Depth: 1 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	15	270	EP		14 4	46.19	0.00	47						1.0
DQRL	SZ	32	226	EP		14 4	48.85	0.00							1.0
HWQ	BZ	43	16	EP		14 4	50.65	0.02							1.0
HWQ	BN	43	16	ES		14 4	55.77	-0.01							1.0
RCY	SZ	45	178	EP		14 4	50.97	-0.02							1.0
RCY	SE	45	178	ES		14 4	56.42	0.01							1.0

May 31 2010 Hour: 15:1 20.1 Lat: 33.80N Lon: 35.77E Depth: 12 Agency: REL Local  
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	317	EP		15 1	23.49	0.01							1.0
DQRL	SZ	22	241	EP		15 1	24.20	0.01							1.0
DQRL	SN	22	241	ES		15 1	27.19	-0.01							1.0
RCY	SZ	34	170	EP		15 1	26.01	-0.01	42						1.0
RCY	SN	34	170	ES		15 1	30.40	0.01							1.0
HWQ	BZ	56	17	EP		15 1	29.31	-0.01							1.0

May 31 2010 Hour: 17:8 41.0 Lat: 33.79N Lon: 35.78E Depth: 0 Agency: REL Local  
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	318	EP		17 8	43.72	-0.05							1.0
DQRL	SZ	21	245	EP		17 8	44.44	0.02							1.0
DQRL	SN	21	245	ES		17 8	46.99	0.02							1.0
RCY	SZ	33	171	EP		17 8	46.21	-0.04	47						1.0
RCY	SN	33	171	ES		17 8	50.16	0.01							1.0
HWQ	BZ	57	16	EP		17 8	50.14	0.04							1.0



# Epicentral Map of Lebanon

## MAY 2010

