

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

August

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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.

August 1 2011 Hour: 5:38 2.6 Lat: 33.30N Lon: 35.42E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	33	232	EP		538	7.85	-0.00							1.0
NAQL	SN	33	232	ES		538	11.72	-0.03							1.0
RCY	SZ	45	60	EP		538	9.89	0.08	45						1.0
RCY	SE	45	60	ES		538	15.09	-0.06							1.0
DQRL	SZ	48	17	EP		538	10.29	0.04							1.0
DQRL	SN	48	17	ES		538	15.86	-0.05							1.0
BHL	BZ	71	18	EP		538	13.97	-0.04							1.0
HWQ	BZ	119	24	EP		538	21.79	-0.04							1.0
HWQ	BN	119	24	ES		538	36.17	0.10							1.0

August 1 2011 Hour: 14:58 11.0 Agency: REL Distant
EMSC OT=14:58:11.0 34.70N 138.45E 30Km M=6.0 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1510	19.99								
BHL	BZ			EP		1510	22.44								
RCY	SZ			EP		1510	23.20								
DQRL	SZ			EP		1510	23.59								

August 2 2011 Hour: 11: 5 57.1 Lat: 33.91N Lon: 35.82E Depth: 3 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	268	EP		11 5	59.74	0.00	43						1.0
DQRL	SZ	33	226	EP		11 6	2.39	-0.01							1.0
DQRL	SE	33	226	ES		11 6	6.31	-0.00							1.0
HWQ	BZ	43	15	EP		11 6	4.03	0.02							1.0
HWQ	BE	43	15	ES		11 6	9.11	-0.01							1.0
RCY	SZ	46	179	EP		11 6	4.51	-0.01							1.0
RCY	SE	46	179	ES		11 6	10.01	0.01							1.0

August 2 2011 Hour: 19:18 48.0 Agency: REL Distant
EMSC OT=19:18:48.0 23.97S 178.99E 538Km M=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		1937	29.34								
BHL	BZ			EP		1937	30.31								
RCY	SZ			EP		1937	30.51								
DQRL	SZ			EP		1937	31.00								

August 2 2011 Hour: 21:40 3.3 Lat: 34.27N Lon: 36.43E Depth: 9 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	3	216	EP		2140	5.08	0.03	47						1.0
FKH	SN	3	216	ES		2140	6.35	0.02							1.0
HWQ	BZ	45	272	EP		2140	10.63	-0.06							1.0
HWQ	BN	45	272	ES		2140	16.19	0.04							1.0
BHL	BZ	82	241	EP		2140	16.70	0.03							1.0
BHL	BN	82	241	ES		2140	26.47	-0.09							1.0
DQRL	SZ	101	232	EP		2140	19.49	0.01							1.0
DQRL	SE	101	232	ES		2140	31.54	0.10							1.0
RCY	SZ	102	213	EP		2140	19.52	-0.09							1.0
RCY	SN	102	213	ES		2140	31.68	0.01							1.0

August 3 2011 Hour: 15:13 39.7 Lat: 33.78N Lon: 35.79E Depth: 2 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	317	EP		1513	42.61	-0.03	39						1.0
BHL	BE	18	317	ES		1513	44.82	-0.02							1.0
DQRL	SZ	22	247	EP		1513	43.20	-0.06							1.0
DQRL	SN	22	247	ES		1513	45.97	0.06							1.0
RCY	SZ	32	172	EP		1513	44.89	-0.02							1.0
RCY	SE	32	172	ES		1513	48.80	0.01							1.0
HWQ	BZ	57	15	EP		1513	48.88	0.05							1.0

August 4 2011 Hour: 3:13 9.0 Agency: REL Regional

EMSC OT=03:13:09.0 38.61N 39.60E 22Km M=4.2 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		314	28.48								
BHL	BZ			EP		314	34.01								
DQRL	SZ			EP		314	38.52								
RCY	SZ			EP		314	38.38								

August 4 2011 Hour: 13:51 35.0 Agency: REL Distant

EMSC OT=13:51:35.0 48.84N 154.81E 44Km M=6.1 KURIL ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		14 3	48.01								
HWQ	BZ			EP		14 3	46.24								

August 4 2011 Hour: 17: 9 16.9 Lat: 33.79N Lon: 35.79E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	317	EP		17 9	19.66	-0.14	35						1.0
BHL	BN	18	317	ES		17 9	21.87	-0.08							1.0
DQRL	SZ	22	246	EP		17 9	20.33	-0.11							1.0
DQRL	SE	22	246	ES		17 9	23.29	0.22							1.0
RCY	SZ	32	172	EP		17 9	22.08	-0.03							1.0
RCY	SN	32	172	ES		17 9	25.97	-0.01							1.0
HWQ	BZ	57	15	EP		17 9	26.01	0.00							1.0
HWQ	BN	57	15	ES		17 9	32.91	0.15							1.0

August 5 2011 Hour: 12:57 57.5 Lat: 33.87N Lon: 35.82E Depth: 5 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	283	EP		1258	0.17	-0.09	48						1.0
DQRL	SZ	30	232	EP		1258	2.42	0.04							1.0
DQRL	SE	30	232	ES		1258	6.04	0.05							1.0
RCY	SZ	42	178	EP		1258	4.25	-0.05							1.0
RCY	SE	42	178	ES		1258	9.35	0.01							1.0
HWQ	BZ	47	14	EP		1258	5.06	-0.02							1.0
HWQ	BN	47	14	ES		1258	10.76	0.05							1.0

August 5 2011 Hour: 15:49 53.4 Lat: 33.78N Lon: 35.78E 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	18	320	EP		1549	56.19	-0.06	41						1.0
BHL	BE	18	320	ES		1549	58.34	-0.01							1.0
DQRL	SZ	21	246	EP		1549	56.75	-0.02							1.0
DQRL	SN	21	246	ES		1549	59.30	0.04							1.0
RCY	SZ	32	170	EP		1549	58.62	0.01							1.0
RCY	SE	32	170	ES		1550	2.43	-0.02							1.0
HWQ	BZ	57	16	EP		1550	2.69	0.05							1.0

August 5 2011 Hour: 23:7 5.3 Lat: 33.78N Lon: 35.76E Depth: 12 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	325	EP		23	7	8.70-0.02							1.0
BHL	BE	17	325	ES		23	7	11.28-0.00							1.0
DQRL	SZ	19	245	EP		23	7	9.05 0.02	55						1.0
DQRL	SN	19	245	ES		23	7	11.82 0.00							1.0
RCY	SZ	32	167	EP		23	7	10.85-0.03							1.0
RCY	SN	32	167	ES		23	7	15.05 0.02							1.0
HWQ	BZ	58	17	EP		23	7	14.88 0.02							1.0

August 6 2011 Hour: 9:48 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		949	25.08								
FKH	SZ			EP		949	14.37								
HWQ	BZ			EP		949	22.23								

August 6 2011 Hour: 14:32 6.9 Lat: 33.58N Lon: 36.00E Depth: 17 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	18	238	EP		1432	11.01 0.01								1.0
RCY	SE	18	238	ES		1432	14.06-0.00								1.0
DQRL	SZ	42	289	EP		1432	14.13 0.02								1.0
DQRL	SN	42	289	ES		1432	19.37-0.11								1.0
BHL	BZ	48	318	EP		1432	14.95 0.01	47							1.0
BHL	BN	48	318	ES		1432	21.06 0.14								1.0
HWQ	BZ	77	356	EP		1432	19.26 0.03								1.0
HWQ	BN	77	356	ES		1432	28.30-0.09								1.0

August 6 2011 Hour: 20:42 0.0 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2042	35.04								
RCY	SZ			EP		2042	38.06								

August 7 2011 Hour: 8:52 26.3 Lat: 32.59N Lon: 34.39E Depth: 19 Agency: REL Regional
Magnitudes: 4.0MC REL Rms: 0.2 secs

EMSC OT=08:52:26.0 32.53N 34.52E 30Km M=4.2 DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	92	50	EP		852	41.03 0.26								1.0
NAQL	SN	92	50	ES		852	51.29-0.17								1.0
DQRL	SZ	166	41	EP		852	51.00-0.20								0.2
DQRL	SN	166	41	ES		853	9.61 0.01								1.0
RCY	SZ	169	53	EP		852	51.77 0.20								1.0
RCY	SN	169	53	ES		853	10.26 0.01								1.0
BEYL	BZ	176	36	EP		852	52.04-0.29								0.2
BEYL	BE	176	36	ES		853	11.81 0.25								1.0
BHL	BZ	188	39	EP		852	53.52-0.39	202							1.0
BHL	BE	188	39	ES		853	14.18-0.14								1.0
HWQ	BZ	237	37	EP		853	0.02-0.02								1.0
FKH	SZ	263	45	EP		853	3.99 0.72								0.2

August 7 2011 Hour: 11:17 28.2 Lat: 33.78N Lon: 35.79E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	19	316	EP		1117	31.15-0.07	48							1.0
BHL	BN	19	316	ES		1117	33.46 0.02								1.0
DQRL	SZ	23	247	EP		1117	31.84-0.03								1.0
DQRL	SN	23	247	ES		1117	34.56-0.01								1.0
BEYL	BZ	30	289	EP		1117	33.07 0.08								1.0
RCY	SZ	32	173	EP		1117	33.48 0.06								1.0

RCY	SN	32	173	ES		1117	37.24	-0.03										1.0
HWQ	BZ	57	14	EP		1117	37.33	-0.01										1.0

August 7 2011 Hour: 13:54 22.6 Lat: 34.58N Lon: 36.37E 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	37	175	EP		1354	28.53	-0.03	45						1.0
FKH	SN	37	175	ES		1354	33.00	0.01							1.0
HWQ	BZ	51	230	EP		1354	30.85	-0.02							1.0
HWQ	BN	51	230	ES		1354	37.00	-0.01							1.0
BHL	BZ	100	222	EP		1354	38.74	0.06							1.0
DQRL	SZ	122	218	EP		1354	42.21	-0.01							1.0

August 8 2011 Hour: 0:20 59.7 Lat: 33.04N Lon: 35.76E Depth: 2 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	52	8	EP		021	8.05	0.06	51						1.0
RCY	SN	52	8	ES		021	14.13	-0.03							1.0
NAQL	SZ	58	279	EP		021	9.09	0.01							1.0
NAQL	SN	58	279	ES		021	16.04	-0.01							1.0
DQRL	SZ	76	347	EP		021	11.98	0.01							1.0
DQRL	SN	76	347	ES		021	21.12	0.03							1.0
BHL	BZ	97	354	EP		021	15.18	-0.09							1.0
HWQ	BZ	139	7	EP		021	21.85	0.00							1.0

August 8 2011 Hour: 13: 0 59.9 Lat: 33.80N Lon: 35.78E Depth: 6 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	317	EP		13	1	2.79	-0.01	34					1.0
DQRL	SZ	22	242	EP		13	1	3.55	-0.02						1.0
DQRL	SN	22	242	ES		13	1	6.31	0.02						1.0
RCY	SZ	34	171	EP		13	1	5.45	-0.03						1.0
RCY	SN	34	171	ES		13	1	9.63	0.02						1.0
HWQ	BZ	56	16	EP		13	1	9.02	0.06						1.0
HWQ	BN	56	16	ES		13	1	15.64	-0.03						1.0

August 9 2011 Hour: 10:28 15.3 Lat: 34.55N Lon: 36.80E Depth: 15 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	84	249	EP		1028	28.51	-0.13	52						1.0
HWQ	BN	84	249	ES		1028	38.53	-0.01							1.0
BHL	BZ	128	236	EP		1028	35.22	0.19							1.0
RCY	SZ	147	218	EP		1028	37.78	-0.11							1.0
DQRL	SZ	147	231	EP		1028	37.96	0.07							1.0
RCY	SE	147	218	ES		1028	54.62	-0.01							1.0

August 10 2011 Hour: 0:53 27.0 Agency: REL Distant
EMSC OT=00:53:27.0 27.81N 65.10E 57Km M=5.8 PAKISTAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		058	53.87								
BHL	BZ			EP		058	55.82								
DQRL	SZ			EP		058	56.17								

August 10 2011 Hour: 19:31 35.0 Agency: REL Regional
EMSC OT=19:31:35.0 35.85N 30.08E 10Km M=4.1 EASTERN MED SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1932	51.25								
DQRL	SZ			EP		1932	52.66								
RCY	SZ			EP		1932	55.91								

August 11 2011 Hour: 1:13 43.0 Agency: REL Distant
EMSC OT=01:13:43.0 24.85S 179.92E 515Km M=5.1 SOUTH OF FIJI ISLS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ EP 132 30.38
 BHL BZ EP 132 30.40
 DQRL SZ EP 132 31.12

August 11 2011 Hour: 17:26 58.3 Lat: 33.79N Lon: 35.75E 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 15 323 EP 1727 1.45-0.05 46 1.0
 BHL BN 15 323 ES 1727 3.90 0.02 1.0
 DQRL SZ 20 240 EP 1727 2.15 0.07 1.0
 DQRL SN 20 240 ES 1727 4.86-0.03 1.0
 RCY SZ 34 167 EP 1727 4.13-0.05 1.0
 RCY SE 34 167 ES 1727 8.58 0.03 1.0
 HWQ BZ 56 18 EP 1727 7.65 0.02 1.0

August 11 2011 Hour: 18: 7 0.0 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 18 8 3.73
 DQRL SZ EP 18 8 7.30

August 11 2011 Hour: 18:22 6.0 Agency: REL Distant
EMSC OT=18:22:06.0 37.06N 140.94E 60Km M=6.0 EASTERN HONSHU
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1834 15.02
 RCY SZ EP 1834 16.07
 DQRL SZ EP 1834 16.21

August 12 2011 Hour: 12:21 59.7 Lat: 33.78N Lon: 35.76E Depth: 5 Agency: REL Local
Magnitudes: 2.5MC 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 17 325 EP 1222 2.52-0.17 30 1.0
 DQRL SZ 20 246 EP 1222 3.13 0.10 1.0
 DQRL SN 20 246 ES 1222 5.52 0.03 1.0
 RCY SZ 32 168 EP 1222 4.99 0.03 1.0
 RCY SN 32 168 ES 1222 8.81-0.04 1.0
 HWQ BZ 58 17 EP 1222 9.01-0.12 1.0
 HWQ BN 58 17 ES 1222 16.28 0.17 1.0

August 12 2011 Hour: 15:48 13.7 Lat: 33.79N Lon: 35.78E 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 17 317 EP 1548 16.45-0.03 41 1.0
 DQRL SZ 22 245 EP 1548 17.18-0.01 1.0
 DQRL SN 22 245 ES 1548 19.80 0.02 1.0
 RCY SZ 33 171 EP 1548 19.01 0.01 1.0
 RCY SN 33 171 ES 1548 22.93-0.01 1.0
 HWQ BZ 56 16 EP 1548 22.78 0.02 1.0

August 13 2011 Hour: 15:50 17.1 Lat: 33.78N Lon: 35.78E Depth: 1 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs
BEIRUT REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ 18 319 EP 1550 19.96-0.00 34 1.0
 DQRL SZ 21 245 EP 1550 20.57 0.02 1.0
 DQRL SN 21 245 ES 1550 23.09-0.01 1.0
 RCY SZ 32 170 EP 1550 22.35-0.02 1.0
 RCY SN 32 170 ES 1550 26.27 0.01 1.0

HWQ BZ 57 16 EP 1550 26.30 0.00 1.0

August 15 2011 Hour: 8: 8 47.0 Lat: 33.86N Lon: 35.83E Depth: 7 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	16	286	EP		8 8	49.98	-0.02	38						1.0
BHL	BN	16	286	ES		8 8	52.23	0.02							1.0
DQRL	SZ	30	233	EP		8 8	51.99	0.04							1.0
DQRL	SN	30	233	ES		8 8	55.58	-0.04							1.0
RCY	SZ	41	179	EP		8 8	53.76	0.02							1.0
RCY	SN	41	179	ES		8 8	58.72	-0.01							1.0
HWQ	BZ	47	14	EP		8 8	54.73	-0.02							1.0

August 15 2011 Hour: 11:39 59.7 Lat: 33.76N Lon: 35.96E Depth: 12 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	32	202	EP		1140	5.26	-0.07							1.0
RCY	SN	32	202	ES		1140	9.55	0.05							1.0
BHL	BZ	33	299	EP		1140	5.40	-0.00	38						1.0
DQRL	SZ	37	260	EP		1140	6.06	-0.00							1.0
DQRL	SN	37	260	ES		1140	10.77	-0.00							1.0
HWQ	BZ	57	358	EP		1140	9.19	0.03							1.0
HWQ	BN	57	358	ES		1140	16.17	-0.00							1.0

August 15 2011 Hour: 15:35 56.7 Lat: 33.34N Lon: 35.60E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

MOUNT HERMON REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	28	51	EP		1536	1.24	-0.03	38						1.0
RCY	SN	28	51	ES		1536	4.66	0.01							1.0
DQRL	SZ	41	356	EP		1536	3.35	0.03							1.0
DQRL	SN	41	356	ES		1536	8.20	-0.02							1.0
BHL	BZ	63	5	EP		1536	6.88	-0.01							1.0
HWQ	BZ	109	17	EP		1536	14.33	0.01							1.0

August 16 2011 Hour: 14:58 41.7 Lat: 33.79N Lon: 35.78E 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	319	EP		1458	44.39	-0.02	40						1.0
BHL	BE	17	319	ES		1458	46.43	-0.01							1.0
DQRL	SZ	21	244	EP		1458	45.10	0.02							1.0
RCY	SZ	33	170	EP		1458	46.97	-0.02							1.0
RCY	SE	33	170	ES		1458	50.94	0.01							1.0
HWQ	BZ	57	16	EP		1458	50.81	0.02							1.0

August 17 2011 Hour: 11: 8 56.9 Lat: 34.38N Lon: 36.68E Depth: 5 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
HWQ	SZ	68	261	EP		11 9	8.01	0.01	63						1.0
HWQ	SN	68	261	ES		11 9	16.19	-0.02							1.0
BHL	BZ	108	241	EP		11 9	14.49	0.07							1.0
RCY	SZ	125	219	EP		11 9	16.90	-0.04							1.0
RCY	SN	125	219	ES		11 9	31.78	0.01							1.0
DQRL	SZ	127	234	EP		11 9	17.12	-0.03							1.0

August 17 2011 Hour: 11:44 8.0

Agency: REL Distant

EMSC OT=11:44:08.0 36.82N 143.82E 10Km M=6.1 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1156	34.79								
RCY	SZ			EP		1156	35.67								
DQRL	SZ			EP		1156	35.81								

August 17 2011 Hour: 16:11 55.4

Lat: 33.78N

Lon: 35.78E

Depth: 1

Agency: REL Local

Magnitudes: 2.7MC REL

Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	318	EP		1611	58.35	0.01							1.0
DQRL	SZ	22	246	EP		1611	58.97	0.01	42						1.0
DQRL	SN	22	246	ES		1612	1.56	-0.01							1.0
RCY	SZ	32	172	EP		1612	0.66	-0.00							1.0
RCY	SN	32	172	ES		1612	4.54	-0.00							1.0
HWQ	SZ	57	15	EP		1612	4.58	0.00							0.2

August 17 2011 Hour: 16:32 46.6

Lat: 34.04N

Lon: 35.87E

Depth: 14

Agency: REL Local

Magnitudes: 2.9MC REL

Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	25	233	EP		1632	51.33	-0.06	50						1.0
BHL	BN	25	233	ES		1632	54.92	-0.00							1.0
HWQ	SZ	27	14	EP		1632	51.72	0.06	51						1.0
HWQ	SN	27	14	ES		1632	55.39	0.01							1.0
DQRL	SZ	47	217	EP		1632	54.49	0.02							1.0
FKH	SZ	54	65	EP		1632	55.57	-0.06							1.0
RCY	SZ	61	183	EP		1632	56.54	0.00							1.0
RCY	SN	61	183	ES		1633	3.91	0.04							1.0

August 17 2011 Hour: 17:17 23.2

Lat: 33.79N

Lon: 35.76E

Depth: 4

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	323	EP		1717	25.93	-0.05	58						1.0
DQRL	SZ	20	243	EP		1717	26.51	-0.02							1.0
DQRL	SN	20	243	ES		1717	29.01	0.02							1.0
BEYL	BZ	27	291	EP		1717	27.59	0.05							1.0
RCY	SZ	33	168	EP		1717	28.55	-0.06							1.0
RCY	SN	33	168	ES		1717	32.64	0.03							1.0
HWQ	SZ	57	17	EP		1717	32.39	-0.06							1.0
HWQ	SN	57	17	ES		1717	39.33	0.04							1.0
FKH	SZ	79	50	EP		1717	35.98	0.07							1.0
FKH	SN	79	50	ES		1717	45.29	-0.02							1.0

August 17 2011 Hour: 23:23 44.7

Lat: 33.79N

Lon: 35.80E

Depth: 7

Agency: REL Local

Magnitudes: 2.8MC REL

Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	19	313	EP		2323	48.08	0.02	44						1.0
BHL	BE	19	313	ES		2323	50.51	-0.03							1.0
DQRL	SZ	24	247	EP		2323	48.72	-0.04							1.0
DQRL	SN	24	247	ES		2323	51.80	0.04							1.0
BEYL	BZ	30	288	EP		2323	49.82	0.08							0.2
RCY	SZ	33	175	EP		2323	50.14	-0.03							1.0
RCY	SE	33	175	ES		2323	54.23	0.02							1.0
HWQ	SZ	56	14	EP		2323	53.86	0.03							1.0

August 18 2011 Hour: 12:35 46.7 Lat: 34.64N Lon: 36.38E 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	44	176	EP		1235	53.79	0.05	51						1.0
FKH	SN	44	176	ES		1235	58.88	-0.07							1.0
HWQ	SZ	56	225	EP		1235	55.69	-0.08							1.0
HWQ	SN	56	225	ES		1236	2.38	-0.11							1.0
BHL	BZ	105	220	EP		1236	3.69	0.03							1.0
DQRL	SZ	127	216	EP		1236	7.27	0.02							1.0
DQRL	SN	127	216	ES		1236	22.60	0.15							1.0

August 18 2011 Hour: 16:49 52.1 Lat: 33.79N Lon: 35.77E Depth: 7 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	319	EP		1649	55.14	0.02	41						1.0
BHL	BN	17	319	ES		1649	57.31	-0.01							1.0
DQRL	SZ	21	243	EP		1649	55.77	0.01							1.0
DQRL	SN	21	243	ES		1649	58.44	-0.01							1.0
RCY	SZ	33	170	EP		1649	57.65	-0.03							1.0
RCY	SN	33	170	ES		1650	1.80	0.02							1.0
HWQ	SZ	56	17	EP		1650	1.32	-0.00							1.0

August 19 2011 Hour: 3:54 27.0 Agency: REL Distant

EMSC OT=03:54:27.0 16.52S 176.89W 412Km M=6.2 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		413	18.10								
BHL	BZ			EP		413	20.23								
RCY	SZ			EP		413	20.85								
DQRL	SZ			EP		413	21.73								

August 19 2011 Hour: 5:36 33.0 Agency: REL Distant

EMSC OT=05:36:33.0 37.72N 141.66E 48Km M=6.3 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		548	42.63								
RCY	SZ			EP		548	44.46								
DQRL	SZ			EP		548	44.38								

August 20 2011 Hour: 5:6 47.0 Lat: 33.71N Lon: 35.67E 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
DQRL	SZ	9	265	EP		5 6	48.42	-0.03	44						1.0
DQRL	SN	9	265	ES		5 6	49.57	0.01							1.0
BHL	BZ	21	357	EP		5 6	50.50	0.09							1.0
BHL	BN	21	357	ES		5 6	52.95	-0.02							1.0
BEYL	BZ	24	318	EP		5 6	50.80	-0.01							1.0
RCY	SZ	29	147	EP		5 6	51.65	0.04							1.0
RCY	SN	29	147	ES		5 6	55.03	-0.02							1.0
HWQ	SZ	68	22	EP		5 6	57.85	-0.06							1.0

August 20 2011 Hour: 12:25 12.2 Lat: 35.13N Lon: 36.91E Depth: 4 Agency: REL Regional
Magnitudes: 3.3MC REL Rms: 0.0 secs

EMSC OT=12:25:04.0 35.77N 36.27E 2Km M=3.3 SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	129	223	EP		1225	32.82	-0.01	86						1.0
HWQ	SN	129	223	ES		1225	48.14	0.01							1.0
BHL	BZ	178	220	EP		1225	39.93	-0.07							1.0
DQRL	SZ	201	218	EP		1225	42.82	0.09							1.0
RCY	SZ	207	209	EP		1225	43.54	-0.01							1.0
RCY	SN	207	209	ES		1226	6.77	-0.01							1.0

August 20 2011 Hour: 17:12 40.0 Lat: 33.10N Lon: 35.88E 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	44	355	EP		1712	47.11	-0.07	41						1.0
RCY	SN	44	355	ES		1712	52.36	-0.11							1.0
DQRL	SZ	73	337	EP		1712	51.82	-0.01							1.0
DQRL	SN	73	337	ES		1713	0.64	0.07							1.0
BHL	BZ	92	347	EP		1712	54.70	-0.13							1.0
BHL	BN	92	347	ES		1713	5.82	0.04							1.0
HWQ	SZ	131	3	EP		1713	1.36	0.20							1.0

August 21 2011 Hour: 13:24 50.0 Lat: 33.80N Lon: 35.78E Depth: 23 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	315	EP		1324	54.57	0.05	31						1.0
DQRL	SZ	22	241	EP		1324	55.08	0.01							1.0
DQRL	SN	22	241	ES		1324	58.82	-0.03							1.0
RCY	SZ	34	171	EP		1324	56.57	0.01							1.0
RCY	SN	34	171	ES		1325	1.43	-0.00							1.0
HWQ	SZ	55	17	EP		1324	59.30	-0.03							1.0

August 21 2011 Hour: 18:34 35.4 Lat: 33.97N Lon: 36.12E Depth: 9 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

HERMEL BAALBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	38	335	EP		1834	41.72	-0.03							1.0
HWQ	SE	38	335	ES		1834	46.46	0.02							1.0
BHL	BZ	44	261	EP		1834	42.70	0.07	40						1.0
BHL	BN	44	261	ES		1834	47.93	-0.04							1.0
RCY	SN	59	207	ES		1834	52.14	0.02							1.0
DQRL	SZ	59	240	EP		1834	44.98	-0.01							1.0
DQRL	SN	59	240	ES		1834	52.10	0.01							1.0
RCY	SZ	59	207	EP		1834	44.98	-0.03							1.0

August 21 2011 Hour: 23:40 48.7 Lat: 33.90N Lon: 35.90E Depth: 5 Agency: REL Local
Magnitudes: 3.5MC REL Rms: 0.1 secs

CENTRAL BEKAA

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	23	273	EP		2340	52.49	0.00	111						1.0
BHL	BN	23	273	ES		2340	55.34	0.06							1.0
DQRL	BZ	37	235	EP		2340	54.80	0.05							1.0
DQRL	BN	37	235	ES		2340	59.15	-0.06							1.0
BEYL	BZ	38	266	EP		2340	54.82	-0.00							1.0
HWQ	SZ	43	6	EP		2340	55.40	-0.28	108						1.0
RCY	BZ	45	187	EP		2340	55.73	-0.25	146						1.0
RCY	SN	45	187	ES		2341	1.34	-0.03							1.0
FKH	BZ	61	51	EP		2340	58.75	0.11							1.0
MATL	BZ	69	230	EP		2340	59.94	0.01							1.0
NAQL	SZ	111	219	EP		2341	6.71	0.12							1.0
NAQL	SE	111	219	ES		2341	19.80	-0.01							1.0

August 22 2011 Hour: 20:12 24.0 Agency: REL Distant
EMSC OT=20:12:24.0 06.21S 104.14E 47Km M=6.0 SUNDA STRAIT

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		2024	5.10								
HWQ	SZ			EP		2024	5.75								
BHL	BZ			EP		2024	6.51								
DQRL	SZ			EP		2024	6.60								

August 23 2011 Hour: 11:48 16.1 Lat: 33.78N Lon: 35.77E Depth: 3 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		1148	18.92	-0.05	41						1.0
BHL	BE	17	322	ES		1148	21.13	0.02							1.0
DQRL	SZ	20	245	EP		1148	19.46	0.01							1.0
DQRL	SE	20	245	ES		1148	21.94	-0.00							1.0
RCY	SZ	32	169	EP		1148	21.38	0.03							1.0
RCY	SE	32	169	ES		1148	25.24	-0.02							1.0
HWQ	SZ	57	16	EP		1148	25.37	0.00							1.0

August 23 2011 Hour: 15:55 22.0 Lat: 33.79N Lon: 35.79E Depth: 4 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	316	EP		1555	25.05	-0.01	35						1.0
BHL	BE	18	316	ES		1555	27.32	0.00							1.0
DQRL	SZ	22	246	EP		1555	25.70	0.01							1.0
DQRL	SN	22	246	ES		1555	28.41	-0.00							1.0
RCY	SZ	32	172	EP		1555	27.30	-0.01							1.0
RCY	SN	32	172	ES		1555	31.23	-0.00							1.0
HWQ	SZ	57	15	EP		1555	31.17	0.01							1.0

August 23 2011 Hour: 18:3 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		18 3	43.02								
HWQ	SZ			EP		18 3	42.77								
DQRL	SZ			EP		18 3	43.48								

August 23 2011 Hour: 22:52 14.0 Lat: 33.80N Lon: 35.81E Depth: 11 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	19	310	EP		2252	17.60	-0.00	41						1.0
BHL	BN	19	310	ES		2252	20.28	-0.01							1.0
DQRL	SZ	24	246	EP		2252	18.34	-0.04							1.0
DQRL	SN	24	246	ES		2252	21.66	0.03							1.0
RCY	SZ	33	176	EP		2252	19.75	0.01							1.0
RCY	SN	33	176	ES		2252	23.99	-0.01							1.0
HWQ	SZ	55	13	EP		2252	23.09	0.01							1.0

August 24 2011 Hour: 15:35 0.0 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1535	45.68								
HWQ	SZ			EP		1535	46.60								

August 25 2011 Hour: 0:2 31.6 Lat: 33.28N Lon: 35.40E Depth: 3 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	48	59	EP		0 2	39.40	0.07							1.0
RCY	SE	48	59	ES		0 2	44.99	-0.04							1.0
DQRL	SZ	50	18	EP		0 2	39.69	-0.09	54						1.0
DQRL	SN	50	18	ES		0 2	45.84	0.02							1.0
BHL	BZ	74	19	EP		0 2	43.59	0.05							1.0
HWQ	SZ	122	24	EP		0 2	51.26	-0.04							1.0
HWQ	SN	122	24	ES		0 3	5.88	0.02							1.0

August 25 2011 Hour: 3:37 9.2 Lat: 33.79N Lon: 35.78E Depth: 4 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	318	EP		337	12.17	-0.00	42						1.0
BHL	BE	18	318	ES		337	14.38	0.00							1.0
DQRL	SZ	22	246	EP		337	12.79	0.01							1.0
DQRL	SN	22	246	ES		337	15.42	-0.01							1.0
RCY	SZ	33	171	EP		337	14.52	-0.01							1.0
RCY	SE	33	171	ES		337	18.47	-0.00							1.0
HWQ	SZ	57	16	EP		337	18.38	0.00							1.0

August 25 2011 Hour: 12:19 9.0 Agency: REL Regional

EMSC OT=12:19:09.0 35.81N 29.44E 2Km M=4.0 EASTERN MED SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1220	34.77								
HWQ	SZ			EP		1220	32.06								

August 25 2011 Hour: 15:17 28.7 Lat: 33.81N Lon: 35.76E Depth: 16 Agency: REL Local
Magnitudes: 2.4MC 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	314	EP		1517	32.32	-0.00	26						1.0
DQRL	SZ	22	236	EP		1517	33.15	-0.02							1.0
DQRL	SN	22	236	ES		1517	36.46	0.01							1.0
RCY	SZ	36	169	EP		1517	35.13	0.02							1.0
RCY	SN	36	169	ES		1517	39.82	-0.01							1.0

August 26 2011 Hour: 14:23 14.8 Lat: 33.80N Lon: 35.79E Depth: 16 Agency: REL Local
Magnitudes: 2.4MC 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	312	EP		1423	18.67	-0.00	27						1.0
DQRL	SZ	23	242	EP		1423	19.41	0.02							1.0
DQRL	SN	23	242	ES		1423	22.76	-0.01							1.0
RCY	SZ	34	172	EP		1423	20.95	-0.02							1.0
RCY	SN	34	172	ES		1423	25.51	0.01							1.0

August 27 2011 Hour: 11:9 34.1 Lat: 33.80N Lon: 35.76E Depth: 15 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	320	EP		11 9	37.66	-0.00	22						1.0
DQRL	SZ	21	240	EP		11 9	38.27	0.02							1.0
DQRL	SN	21	240	ES		11 9	41.33	-0.01							1.0
RCY	SZ	34	168	EP		11 9	40.12	-0.02							1.0
RCY	SN	34	168	ES		11 9	44.63	0.01							1.0

August 27 2011 Hour: 20:31 52.0 Agency: REL Distant

EMSC OT=20:31:52.0 24.59S 179.97E 497Km M=5.5 SOUTH OF FIJI ISLS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2050	41.17								
DQRL	SZ			EP		2050	41.81								

August 28 2011 Hour: 6:28 6.1 Lat: 33.29N Lon: 35.28E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC 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	53	30	EP		628	14.56	-0.10							1.0
DQRL	SE	53	30	ES		628	21.03	0.01							1.0
RCY	SZ	57	66	EP		628	15.19	0.02							1.0
RCY	SE	57	66	ES		628	21.91	-0.01							1.0
BHL	BZ	76	27	EP		628	18.38	0.01	45						1.0

HWQ SZ 126 29 EP 628 26.40 0.07 1.0

August 28 2011 Hour: 6:29 9.4 Lat: 33.35N Lon: 35.33E Depth: 5 Agency: REL Local
Magnitudes: 2.8MC 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	45	29	EP		629	16.73	-0.05							1.0
DQRL	SE	45	29	ES		629	22.13	-0.08							1.0
RCY	SZ	50	71	EP		629	17.53	0.02							1.0
RCY	SE	50	71	ES		629	23.48	-0.00							1.0
BHL	BZ	68	26	EP		629	20.53	0.04	40						1.0
BHL	BE	68	26	ES		629	28.74	0.08							1.0
HWQ	SZ	117	29	EP		629	28.27	-0.02							1.0

August 30 2011 Hour: 6:9 17.9 Lat: 33.79N Lon: 35.77E Depth: 2 Agency: REL Local
Magnitudes: 2.4MC 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		6 9	20.62	-0.05	27						1.0
DQRL	SZ	21	243	EP		6 9	21.31	-0.01							1.0
DQRL	SN	21	243	ES		6 9	23.85	0.03							1.0
RCY	SZ	33	169	EP		6 9	23.28	-0.05							1.0
RCY	SN	33	169	ES		6 9	27.34	0.02							1.0
HWQ	SZ	57	17	EP		6 9	27.14	0.05							1.0

August 30 2011 Hour: 6:57 41.0 Agency: REL Distant
EMSC OT=06:57:41.0 06.40S 126.76E 472Km M=6.8 BANDA SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		710	12.20								

August 30 2011 Hour: 22:58 43.1 Lat: 34.27N Lon: 36.02E Depth: 17 Agency: REL Local
Magnitudes: 3.4MC REL Rms: 0.1 secs

NORTH LEBANON

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	7	276	EP		2258	46.28	-0.02							1.0
FKH	SZ	36	95	EP		2258	49.63	0.03							1.0
BHL	BZ	53	219	EP		2258	51.98	0.05	99						1.0
BHL	BN	53	219	ES		2258	58.43	-0.01							1.0
BEYL	BZ	66	228	EP		2258	53.72	-0.02							1.0
DQRL	SZ	75	213	EP		2258	55.21	0.02							1.0
DQRL	SE	75	213	ES		2259	4.18	0.06							1.0
RCY	SZ	88	191	EP		2258	56.97	-0.08							1.0
MATL	BZ	108	216	EP		2258	59.72	-0.18							0.2

August 31 2011 Hour: 1:11 54.3 Lat: 34.16N Lon: 36.26E Depth: 16 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

HERMEL BAALBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	32	295	EP		112	0.09	0.02	42						1.0
HWQ	SE	32	295	ES		112	4.34	-0.01							1.0
BHL	BZ	63	243	EP		112	4.44	-0.06							1.0
DQRL	SZ	81	232	EP		112	7.28	0.07							1.0
RCY	SZ	83	208	EP		112	7.52	-0.03							1.0
RCY	SE	83	208	ES		112	17.38	0.01							1.0

Epicentral Map of Lebanon

AUGUST 2011

