

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

September

2011

Prepared by
The National Centre for Geophysical Research
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GENERAL BULLETIN INFORMATION

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

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

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

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

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

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

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

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

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

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

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

STATIONS USED

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

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

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

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.

September 2 2011 Hour: 4:19 0.0 Agency: REL Regional

STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
RCY SZ EP 420 1.07

September 2 2011 Hour: 10:55 53.0 Agency: REL Distant

EMSC OT=10:55:53.0 52.19N 171.77W 36Km M=6.8 FOX ISLANDS

STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
FKH SZ EP 11 8 51.64
BHL BZ EP 11 8 53.92
DQRL SZ EP 11 8 55.82
RCY SZ EP 11 8 55.82

September 3 2011 Hour: 22:55 38.0 Agency: REL Distant

EMSC OT=22:55:38.0 20.65S 169.75E 150Km M=7.0 VANUATU

STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
BHL BZ EP 2314 34.16

September 4 2011 Hour: 17:41 19.0 Agency: REL Regional

EMSC OT=17:41:19.0 35.70N 31.15E 2Km M=4.2 CYPRUS REGION

STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
BHL BZ EP 1742 22.68
DQRL SZ EP 1742 23.75
HWQ SZ EP 1742 24.59
RCY SZ EP 1742 28.11
FKH SZ EP 1742 30.10

September 5 2011 Hour: 10: 5 49.3 Lat: 34.40N Lon: 36.71E Depth: 2 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 SZ 71 259 EP 10 6 0.84-0.01 60 1.0
HWQ SN 71 259 ES 10 6 9.33-0.04 1.0
RCY SZ 129 219 EP 10 6 10.01-0.04 1.0
RCY SN 129 219 ES 10 6 25.39 0.01 1.0
DQRL SZ 130 234 EP 10 6 10.32 0.07 1.0

September 5 2011 Hour: 9:51 57.0 Agency: REL Distant

EMSC OT=09:51:57.0 15.25S 173.58W 10Km M=6.2 TONGA

STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
BHL BZ EP 1011 39.07
HWQ SZ EP 1011 39.16
DQRL SZ EP 1011 40.23
RCY SZ EP 1011 40.49

September 5 2011 Hour: 11:42 37.0 Agency: REL Regional

EMSC OT=11:42:37.0 36.17N 28.79E 40Km M=3.6 DODECANESE ISLANDS

STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
HWQ SZ EP 1144 2.36
RCY SZ EP 1144 4.40

September 5 2011 Hour: 15:32 49.8 Lat: 33.78N Lon: 35.79E Depth: 8 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 19 318 EP 1532 53.03-0.21 64 1.0
BHL BE 19 318 ES 1532 55.87 0.10 1.0
DQRL BZ 22 249 EP 1532 53.70 0.02 1.0
DQRL SE 22 249 ES 1532 56.46-0.07 1.0
BEYL BZ 30 291 EP 1532 54.95 0.17 1.0
RCY SZ 31 172 EP 1532 55.21 0.08 1.0
MATL BZ 53 233 EP 1532 58.51-0.04 1.0
HWQ SZ 57 14 EP 1532 59.17-0.04 1.0

September 5 2011 Hour: 17:55 11.0

Agency: REL Distant

EMSC OT=17:55:11.0 02.91N 97.94E 95Km M=6.6 NORTHERN SUMATRA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		18	5	42.75							
RCY	SZ			EP		18	5	45.09							
HWQ	SZ			EP		18	5	45.32							
BHL	BZ			EP		18	5	46.41							
DQRL	SZ			EP		18	5	46.79							
BEYL	BZ			EP		18	5	46.95							

September 6 2011 Hour: 8:53 26.2 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		853	28.97	-0.00	37						1.0
DQRL	SZ	20	245	EP		853	29.51	0.03							1.0
DQRL	SN	20	245	ES		853	31.89	-0.02							1.0
RCY	SZ	32	169	EP		853	31.39	-0.03							1.0
RCY	SN	32	169	ES		853	35.31	0.02							1.0
HWQ	SZ	57	17	EP		853	35.45	0.00							1.0

September 6 2011 Hour: 9:25 41.4 Lat: 33.91N Lon: 35.83E Depth: 1 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	269	EP		925	43.99	-0.06	41						1.0
BHL	BN	16	269	ES		925	45.98	0.01							1.0
DQRL	SZ	33	227	EP		925	46.79	0.07							1.0
DQRL	SE	33	227	ES		925	50.62	-0.00							1.0
HWQ	SZ	43	15	EP		925	48.36	0.03							1.0
RCY	SZ	46	179	EP		925	48.70	-0.11							1.0
RCY	SE	46	179	ES		925	54.31	0.05							1.0

September 6 2011 Hour: 16:10 42.4 Lat: 33.78N Lon: 35.75E Depth: 10 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	328	EP		1610	45.59	-0.07	36						1.0
BHL	BE	17	328	ES		1610	48.10	0.01							1.0
DQRL	SZ	18	245	EP		1610	45.87	-0.03							1.0
DQRL	SN	18	245	ES		1610	48.53	0.04							1.0
RCY	SZ	32	166	EP		1610	47.93	0.02							1.0
RCY	SE	32	166	ES		1610	51.98	-0.02							1.0
HWQ	SZ	59	18	EP		1610	52.05	0.04							1.0

September 7 2011 Hour: 7:55 30.0

Agency: REL Distant

EMSC OT=07:55:30.0 27.78S 178.25W 231Km M=5.4 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		814	53.54								
RCY	SZ			EP		814	54.42								
BHL	BZ			EP		814	54.58								
DQRL	SZ			EP		814	54.93								

September 7 2011 Hour: 11:1 0.0

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		11	2	19.93							
DQRL	SZ			EP		11	2	20.33							

September 7 2011 Hour: 13:30 18.0

Agency: REL Regional

EMSC OT=13:30:18.0 37.38N 36.33E 7Km M=4.0 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1331	9.55								
BHL	BZ			EP		1331	12.37								
RCY	SZ			EP		1331	20.80								

September 7 2011 Hour: 15: 3 14.1 Lat: 34.00N Lon: 35.92E Depth: 0 Agency: REL Local

Magnitudes: 2.5MC REL

Rms: 0.1 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	27	246	EP		15 3	18.36	-0.08	29						1.0
HWQ	SZ	31	5	EP		15 3	18.99	-0.04							1.0
HWQ	SE	31	5	ES		15 3	22.72	0.04							1.0
DQRL	SZ	46	224	EP		15 3	21.66	0.11							1.0
RCY	SZ	57	188	EP		15 3	23.24	-0.02							1.0
RCY	SN	57	188	ES		15 3	30.03	-0.00							1.0

September 8 2011 Hour: 12:19 0.0

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1220	11.24								
HWQ	SZ			EP		1220	2.89								

September 8 2011 Hour: 12:24 52.8 Lat: 34.35N Lon: 36.72E Depth: 4 Agency: REL Local

Magnitudes: 3.0MC REL

Rms: 0.1 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	71	264	EP		1225	4.39	0.00	59						1.0
HWQ	SE	71	264	ES		1225	12.91	-0.03							1.0
RCY	SZ	125	221	EP		1225	12.81	-0.08							1.0
DQRL	SZ	128	236	EP		1225	13.36	0.08							1.0
DQRL	SN	128	236	ES		1225	28.43	0.02							1.0

September 9 2011 Hour: 11: 7 18.1 Lat: 33.82N Lon: 35.76E Depth: 26 Agency: REL Local

Magnitudes: 2.7MC REL

Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	313	EP		11 7	22.90	-0.02	37						1.0
DQRL	SZ	22	235	EP		11 7	23.63	0.04							1.0
DQRL	SN	22	235	ES		11 7	27.62	-0.01							1.0
RCY	SZ	36	170	EP		11 7	25.19	-0.04							1.0
RCY	SE	36	170	ES		11 7	30.50	0.02							1.0
HWQ	SZ	54	18	EP		11 7	27.46	0.01							1.0

September 10 2011 Hour: 23:44 54.3 Lat: 33.78N Lon: 35.77E Depth: 10 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	321	EP		2344	57.57	-0.09	41						1.0
BHL	BN	17	321	ES		2345	0.17	0.03							1.0
DQRL	SZ	21	246	EP		2344	58.15	0.04							1.0
BEYL	BZ	28	291	EP		2344	59.09	0.00							1.0
RCY	SZ	32	170	EP		2344	59.81	-0.03							1.0
RCY	SE	32	170	ES		2345	3.95	0.01							1.0
HWQ	SZ	57	16	EP		2345	3.77	0.04							1.0

September 11 2011 Hour: 8:55 44.1 Lat: 33.82N Lon: 35.74E Depth: 26 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	13	321	EP		855	48.77	-0.00	31						1.0
DQRL	SZ	20	232	EP		855	49.36	0.03							1.0
DQRL	SN	20	232	ES		855	53.21	-0.01							1.0

RCY	SZ	37	166	EP		855	51.16	-0.03									1.0
RCY	SE	37	166	ES		855	56.46	0.01									1.0
HWQ	SZ	55	20	EP		855	53.55	0.01									0.2

September 11 2011 Hour: 10:53 16.2 Lat: 34.45N Lon: 36.84E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC 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	46	240	EP		1053	23.44	-0.16	38						1.0
HWQ	SZ	85	257	EP		1053	29.84	0.00							1.0
HWQ	SN	85	257	ES		1053	39.76	-0.17							1.0
BHL	BZ	125	241	EP		1053	36.58	0.19							1.0
RCY	SZ	141	221	EP		1053	38.72	-0.16							1.0
RCY	SN	141	221	ES		1053	55.48	-0.18							1.0
DQRL	SZ	144	235	EP		1053	39.38	0.14							1.0
DQRL	SE	144	235	ES		1053	56.61	0.33							1.0

September 11 2011 Hour: 15:20 23.3 Lat: 33.79N Lon: 35.77E Depth: 14 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	321	EP		1520	26.96	-0.02	40						1.0
BHL	BE	17	321	ES		1520	29.73	0.02							1.0
DQRL	SZ	21	243	EP		1520	27.49	0.04							1.0
DQRL	SN	21	243	ES		1520	30.49	-0.03							1.0
RCY	SZ	33	169	EP		1520	29.22	0.03							1.0
RCY	SN	33	169	ES		1520	33.53	-0.02							1.0
HWQ	SZ	57	17	EP		1520	32.64	-0.02							1.0

September 12 2011 Hour: 6:23 52.6 Lat: 33.78N Lon: 35.72E Depth: 6 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	15	338	EP		623	55.32	-0.00	21						1.0
BHL	BE	15	338	ES		623	57.34	-0.00							1.0
DQRL	SZ	16	240	EP		623	55.38	0.01							1.0
DQRL	SN	16	240	ES		623	57.41	-0.01							1.0
RCY	SZ	33	160	EP		623	58.06	0.00							1.0
RCY	SE	33	160	ES		624	2.10	0.00							1.0
HWQ	SZ	60	21	EP		624	2.28	0.00							1.0

September 12 2011 Hour: 11: 7 58.4 Lat: 34.37N Lon: 36.73E Depth: 1 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
HWQ	SZ	73	262	EP		11 8	10.14	-0.00	40						1.0
RCY	SZ	127	221	EP		11 8	18.94	0.01							1.0
RCY	SE	127	221	ES		11 8	34.13	-0.01							1.0
DQRL	SZ	130	236	EP		11 8	19.29	-0.01							1.0
DQRL	SN	130	236	ES		11 8	34.79	0.01							1.0

September 13 2011 Hour: 3:52 0.0 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		352	30.67								
RCY	SZ			EP		352	33.49								

September 13 2011 Hour: 5:45 52.8 Lat: 33.41N Lon: 34.67E Depth: 30 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

OFFSHORE SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	54	127	EP		546	2.23	-0.07	40						1.0
DQRL	SZ	89	68	EP		546	7.32	0.07							1.0
DQRL	SN	89	68	ES		546	17.95	-0.01							1.0
RCY	SZ	108	85	EP		546	9.78	0.07							1.0

RCY	SE	108	85	ES	546	22.24	0.01										1.0
HWQ	SZ	152	50	EP	546	15.10	-0.02										1.0
HWQ	SN	152	50	ES	546	31.58	-0.06										1.0

September 13 2011 Hour: 7:28 18.4 Lat: 33.82N Lon: 35.75E Depth: 24 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	13	316	EP		728	22.90	0.01							1.0
BHL	BN	13	316	ES		728	26.20	-0.02							1.0
DQRL	SZ	21	233	EP		728	23.55	-0.03							1.0
DQRL	SN	21	233	ES		728	27.44	0.03							1.0
RCY	SZ	37	168	EP		728	25.38	-0.01	36						1.0
RCY	SE	37	168	ES		728	30.57	0.00							1.0
HWQ	SZ	54	19	EP		728	27.66	0.02							1.0

September 13 2011 Hour: 16:19 27.0 Agency: REL Regional

EMSC OT=16:19:27.0 34.24N 23.73E 10Km M=5.0 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1621	49.79								
HWQ	SZ			EP		1621	50.98								
FKH	SZ			EP		1621	56.52								

September 14 2011 Hour: 15:20 17.5 Lat: 33.79N Lon: 35.79E 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	316	EP		1520	20.32	-0.04	37						1.0
DQRL	SZ	22	246	EP		1520	21.06	0.00							1.0
DQRL	SN	22	246	ES		1520	23.73	0.02							1.0
RCY	SZ	33	172	EP		1520	22.72	-0.03							1.0
RCY	SN	33	172	ES		1520	26.66	0.01							1.0
HWQ	SZ	56	15	EP		1520	26.58	0.04							1.0

September 15 2011 Hour: 1:35 30.3 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		135	31.56								
DQRL	SZ			EP		135	35.23								
BHL	BZ			EP		135	38.06								
HWQ	SZ			EP		135	44.88								

September 15 2011 Hour: 2:19 11.4 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		219	13.07								
DQRL	SZ			EP		219	17.60								
BHL	BZ			EP		219	20.00								
HWQ	SZ			EP		219	26.93								

September 15 2011 Hour: 8:0 7.0 Agency: REL Distant

EMSC OT=08:00:07.0 36.39N 141.29E 10Km M=6.2 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		812	22.47								
HWQ	SZ			EP		812	22.75								
BHL	BZ			EP		812	25.28								
DQRL	SZ			EP		812	26.41								

September 15 2011 Hour: 10:9 2.9 Lat: 34.44N Lon: 36.85E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC 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	46	242	EP		10	9	10.36	-0.02	38					1.0
HWQ	SZ	86	258	EP		10	9	16.76	0.08						1.0
HWQ	SN	86	258	ES		10	9	26.86	-0.03						1.0
RCY	SZ	141	222	EP		10	9	25.53	-0.05						1.0

RCY SE 141 222 ES 10 9 42.41 0.03 1.0

September 15 2011 Hour: 10:41 5.8 Lat: 34.40N Lon: 36.83E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC 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	42	246	EP		1041	12.23	-0.29	43						1.0
FKH	SN	42	246	ES		1041	17.55	0.03							1.0
HWQ	SZ	82	261	EP		1041	19.14	0.16							1.0
HWQ	SN	82	261	ES		1041	28.77	-0.00							1.0
RCY	SZ	136	223	EP		1041	27.76	0.12							1.0
RCY	SN	136	223	ES		1041	43.83	-0.01							1.0

September 15 2011 Hour: 11:59 51.0 Agency: REL Distant

EMSC OT=11:59:51.0 14.93S 177.86W 366Km M=5.4 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1218	43.38								
BHL	BZ			EP		1218	44.74								
RCY	SZ			EP		1218	45.23								
DQRL	SZ			EP		1218	45.66								

September 15 2011 Hour: 12:52 41.2 Lat: 33.81N Lon: 35.75E Depth: 24 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	13	317	EP		1252	45.73	0.01	28						1.0
BHL	BE	13	317	ES		1252	49.04	-0.01							1.0
DQRL	SZ	21	234	EP		1252	46.35	0.00							1.0
RCY	SZ	36	168	EP		1252	48.15	0.00							1.0
RCY	SN	36	168	ES		1252	53.27	-0.00							1.0

September 15 2011 Hour: 15:27 3.0 Agency: REL Distant

EMSC OT=15:27:03.0 36.45N 82.63E 10Km M=5.2 SOUTHERN XINJIANG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1534	23.12								

September 15 2011 Hour: 16:45 28.6 Lat: 33.79N Lon: 35.77E Depth: 0 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	320	EP		1645	31.25	-0.02	57						1.0
DQRL	SZ	21	243	EP		1645	31.92	-0.01							1.0
DQRL	SN	21	243	ES		1645	34.43	0.03							1.0
BEYL	BZ	27	290	EP		1645	32.97	0.00							1.0
RCY	SZ	33	169	EP		1645	33.91	-0.04							1.0
RCY	SE	33	169	ES		1645	37.90	-0.01							1.0
HWQ	SZ	57	17	EP		1645	37.77	0.05							1.0
HWQ	SN	57	17	ES		1645	44.40	-0.07							1.0
FKH	SZ	78	49	EP		1645	41.21	0.06							1.0

September 15 2011 Hour: 19:31 2.0 Agency: REL Distant

EMSC OT=19:31:02.0 21.59S 179.41W 630Km M=7.3 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1949	32.33								
HWQ	SZ			EP		1949	33.16								
BHL	BZ			EP		1949	33.66								
RCY	SZ			EP		1949	34.15								
BEYL	BZ			EP		1949	33.90								
DQRL	SZ			EP		1949	34.48								
NAQL	SZ			EP		1949	34.73								

September 16 2011 Hour: 19:26 42.5 Agency: REL Distant

EMSC OT=19:26:42.5 40.32N 142.72E 40Km M=6.7 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1938	46.14								
BHL	BZ			EP		1938	48.20								
RCY	SZ			EP		1938	49.65								
DQRL	SZ			EP		1938	50.14								

September 16 2011 Hour: 22:40 43.0 Agency: REL Distant

EMSC OT=22:40:43.0 40.32N 143.15E 10Km M=5.7 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		2252	53.92								
BHL	BZ			EP		2252	54.86								
DQRL	SZ			EP		2252	57.04								

September 17 2011 Hour: 7:45 0.0 Agency: REL Distant

EMSC OT=07:33:58.0 40.32N 142.88E 34Km M=5.6 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		746	5.83								
HWQ	SZ			EP		746	3.81								

September 17 2011 Hour: 12:20 24.4 Lat: 34.28N Lon: 36.65E 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	SZ	65	271	EP		1220	34.81	-0.02	60						1.0
HWQ	SN	65	271	ES		1220	42.58	0.01							1.0
RCY	SZ	115	221	EP		1220	42.87	0.01							1.0
RCY	SN	115	221	ES		1220	56.53	-0.01							1.0
DQRL	SZ	118	238	EP		1220	43.43	0.01							1.0

September 17 2011 Hour: 14:12 4.8 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	18	318	EP		1412	7.79	0.01	47						1.0
BHL	BE	18	318	ES		1412	9.91	-0.04							1.0
DQRL	SZ	22	247	EP		1412	8.37	-0.00							1.0
DQRL	SN	22	247	ES		1412	11.01	0.03							1.0
BEYL	BZ	29	290	EP		1412	9.51	0.00							1.0
RCY	SZ	32	172	EP		1412	10.00	-0.04							1.0
RCY	SE	32	172	ES		1412	13.88	0.00							1.0
HWQ	SZ	57	15	EP		1412	14.05	0.04							1.0

September 17 2011 Hour: 15:21 11.3 Lat: 33.78N Lon: 35.79E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	317	EP		1521	14.23	-0.02	36						1.0
DQRL	SZ	22	247	EP		1521	14.86	-0.01							1.0
DQRL	SN	22	247	ES		1521	17.50	0.01							1.0
RCY	SZ	32	172	EP		1521	16.56	0.02							1.0
RCY	SN	32	172	ES		1521	20.37	-0.02							1.0
HWQ	SZ	57	15	EP		1521	20.48	0.01							1.0

September 17 2011 Hour: 15:53 26.8 Lat: 33.79N Lon: 35.75E Depth: 8 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	326	EP		1553	29.66	-0.01	33						1.0
DQRL	SZ	19	241	EP		1553	30.15	-0.00							1.0
DQRL	SN	19	241	ES		1553	32.67	0.01							1.0
RCY	SZ	33	166	EP		1553	32.37	-0.01							1.0

RCY	SE	33	166	ES		1553	36.54	0.00									1.0
HWQ	SZ	57	19	EP		1553	36.14	0.01									1.0

September 17 2011 Hour: 20:029.6 Lat: 32.00N Lon: 35.48E Depth: 0 Agency: REL Regional
Magnitudes: 3.6MC REL Rms: 0.3 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	169	11	EP		20	0	55.78	-0.62						1.0
DQRL	SZ	189	3	EP		20	0	59.56	0.35						1.0
DQRL	SN	189	3	ES		20	1	21.34	0.19						1.0
BHL	BZ	212	4	EP		20	1	2.18	0.18	104					1.0
HWQ	SZ	256	10	EP		20	1	7.65	0.09						1.0
HWQ	SN	256	10	ES		20	1	36.01	0.33						1.0

September 18 2011 Hour: 12:4047.0 Agency: REL Distant
EMSC OT=12:40:47.0 27.83N 88.17E 10Km M=6.9 SIKKIM, INDIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		1249	3	0.09							
RCY	SZ			EP		1249	4	0.94							
BHL	BZ			EP		1249	4	0.32							
DQRL	SZ			EP		1249	6	0.17							
BEYL	BZ			EP		1249	5	0.71							

September 18 2011 Hour: 16:4433.5 Lat: 33.99N Lon: 35.93E Depth: 6 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	27	249	EP		1644	37.99	-0.03	52						1.0
BHL	BN	27	249	ES		1644	41.35	0.00							1.0
HWQ	SZ	32	3	EP		1644	38.77	-0.00							1.0
DQRL	SZ	46	226	EP		1644	41.03	0.05							1.0
FKH	SZ	53	58	EP		1644	42.06	-0.03							1.0
FKH	SN	53	58	ES		1644	48.47	0.03							1.0
RCY	SZ	56	189	EP		1644	42.55	-0.01							1.0
RCY	SE	56	189	ES		1644	49.24	-0.01							1.0

September 19 2011 Hour: 23:4250.3 Lat: 33.79N Lon: 35.79E Depth: 13 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	313	EP		2342	54.04	-0.00	36						1.0
DQRL	SZ	23	245	EP		2342	54.70	-0.02							1.0
DQRL	SN	23	245	ES		2342	57.99	0.02							1.0
RCY	SZ	33	174	EP		2342	56.14	-0.05							1.0
RCY	SN	33	174	ES		2343	0.58	0.04							1.0
HWQ	SZ	56	15	EP		2342	59.53	0.02							1.0

September 20 2011 Hour: 5:4826.8 Lat: 33.87N Lon: 35.85E Depth: 2 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	18	281	EP		548	29.76	-0.01	49						1.0
BHL	BN	18	281	ES		548	31.95	-0.01							1.0
DQRL	SZ	32	234	EP		548	31.90	-0.04							1.0
DQRL	SN	32	234	ES		548	35.77	0.03							1.0
RCY	SZ	42	181	EP		548	33.59	-0.01							1.0
RCY	SN	42	181	ES		548	38.63	0.01							1.0
HWQ	SZ	46	12	EP		548	34.25	0.04							1.0
FKH	SZ	66	52	EP		548	37.51	-0.02							1.0

September 21 2011 Hour: 13:27 23.1 Lat: 33.78N Lon: 35.78E Depth: 0 Agency: REL Local
 Magnitudes: 2.6MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	320	EP		1327	25.87	-0.01	34						1.0
DQRL	SZ	21	245	EP		1327	26.47	0.02							1.0
DQRL	SN	21	245	ES		1327	28.94	-0.01							1.0
RCY	SZ	32	170	EP		1327	28.34	0.03							1.0
RCY	SN	32	170	ES		1327	32.16	-0.03							1.0
HWQ	SZ	57	16	EP		1327	32.26	-0.00							1.0

September 21 2011 Hour: 17:23 29.7 Lat: 34.46N Lon: 36.39E Depth: 0 Agency: REL Local
 Magnitudes: 2.9MC 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	24	176	EP		1723	33.57	0.01	50						1.0
FKH	SN	24	176	ES		1723	36.45	-0.00							1.0
HWQ	SZ	46	244	EP		1723	37.04	-0.02							1.0
HWQ	SE	46	244	ES		1723	42.54	0.00							1.0
BHL	BZ	92	228	EP		1723	44.56	0.06							1.0
DQRL	SZ	113	222	EP		1723	47.86	-0.05							1.0

September 21 2011 Hour: 21:56 7.0 Lat: 33.33N Lon: 35.38E Depth: 0 Agency: REL Local
 Magnitudes: 3.4MC REL Rms: 0.1 secs

SOUTH LEBANON

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	32	223	EP		2156	12.13	0.04							1.0
DQRL	SZ	46	23	EP		2156	14.38	-0.01							1.0
DQRL	SN	46	23	ES		2156	19.85	-0.03							1.0
RCY	SZ	47	66	EP		2156	14.51	-0.04							1.0
RCY	SN	47	66	ES		2156	20.22	0.06							1.0
BEYL	BZ	62	10	EP		2156	16.92	0.00							1.0
BHL	BZ	69	22	EP		2156	18.04	-0.11	100						1.0
BHL	BN	69	22	ES		2156	26.50	0.08							1.0
HWQ	SZ	118	26	EP		2156	26.13	0.08							1.0
HWQ	SN	118	26	ES		2156	40.07	-0.09							1.0
FKH	SZ	140	43	EP		2156	29.36	-0.11							1.0
FKH	SN	140	43	ES		2156	46.17	0.06							1.0

September 22 2011 Hour: 2: 8 40.8 Lat: 33.31N Lon: 35.40E Depth: 0 Agency: REL Local
 Magnitudes: 2.6MC REL Rms: 0.0 secs

SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	46	63	EP		2 8	48.20	-0.01	31						1.0
RCY	SN	46	63	ES		2 8	53.72	0.00							1.0
DQRL	SZ	47	20	EP		2 8	48.34	-0.05							1.0
DQRL	SN	47	20	ES		2 8	54.03	-0.00							1.0
BHL	BZ	71	20	EP		2 8	52.17	0.01							1.0
HWQ	SZ	119	25	EP		2 9	0.07	0.05							1.0

September 22 2011 Hour: 3:22 36.0 Agency: REL Regional

EMSC OT=03:22:36.0 39.79N 38.84E 5Km M=5.5 EASTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		324	1.56								
HWQ	SZ			EP		324	3.51								
BHL	BZ			EP		324	9.18								
DQRL	SZ			EP		324	13.51								
RCY	SZ			EP		324	15.21								

September 22 2011 Hour: 16: 9 42.8 Lat: 33.79N Lon: 35.78E Depth: 0 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	317	EP		16	9	45.48-0.02	58						1.0
DQRL	SZ	22	243	EP		16	9	46.27-0.01							1.0
DQRL	SN	22	243	ES		16	9	48.89	0.03						1.0
BEYL	BZ	28	288	EP		16	9	47.14-0.12							0.2
RCY	SZ	33	171	EP		16	9	48.17-0.03							1.0
RCY	SN	33	171	ES		16	9	52.19-0.01							1.0
HWQ	SZ	56	16	EP		16	9	51.82	0.01						1.0
HWQ	SE	56	16	ES		16	9	58.46-0.03							1.0
FKH	SZ	77	49	EP		16	9	55.27	0.07						1.0

September 22 2011 Hour: 23: 7 2.0 Agency: REL Distant

EMSC OT=23:07:02.0 15.41S 175.21W 2Km M=6.5 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		2326	43.30								
HWQ	SZ			EP		2326	44.52								
RCY	SZ			EP		2326	46.35								
BHL	BZ			EP		2326	45.74								
DQRL	SZ			EP		2326	46.05								
BEYL	BZ			EP		2326	46.66								

September 23 2011 Hour: 1:29 5.2 Lat: 34.12N Lon: 35.79E Depth: 22 Agency: REL Local
 Magnitudes: 2.8MC REL Rms: 0.0 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	23	39	EP		129	10.37	0.03	45						1.0
HWQ	SN	23	39	ES		129	14.10-0.04								1.0
BHL	BZ	27	208	EP		129	10.87	0.08							1.0
BHL	BN	27	208	ES		129	14.94	0.01							1.0
DQRL	SZ	50	204	EP		129	13.75-0.07								1.0
DQRL	SN	50	204	ES		129	20.18-0.01								1.0
FKH	SZ	59	76	EP		129	15.07	0.02							1.0
RCY	SZ	69	177	EP		129	16.52-0.02								1.0
RCY	SN	69	177	ES		129	24.94	0.01							1.0

September 24 2011 Hour: 6: 2 17.7 Lat: 33.88N Lon: 35.84E 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	280	EP		6	2	20.54-0.04	42						1.0
BHL	BN	18	280	ES		6	2	22.68-0.02							1.0
DQRL	SZ	32	233	EP		6	2	22.84	0.01						1.0
DQRL	SN	32	233	ES		6	2	26.64	0.05						1.0
RCY	SZ	42	181	EP		6	2	24.53-0.01							1.0
RCY	SN	42	181	ES		6	2	29.57-0.02							1.0
HWQ	SZ	46	12	EP		6	2	25.10	0.03						1.0

September 25 2011 Hour: 6: 8 52.3 Lat: 33.78N Lon: 35.79E 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	317	EP		6	8	55.20-0.01	40						1.0
BHL	BN	18	317	ES		6	8	57.38-0.01							1.0
DQRL	SZ	22	247	EP		6	8	55.87	0.03						1.0
DQRL	SN	22	247	ES		6	8	58.47-0.00							1.0
RCY	SZ	32	172	EP		6	8	57.47-0.01							1.0
RCY	SN	32	172	ES		6	9	1.32-0.01							1.0
HWQ	SZ	57	15	EP		6	9	1.42	0.01						1.0

September 25 2011 Hour: 10:23 57.0 Lat: 34.34N Lon: 36.58E Depth: 0 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
FKH	SZ	19	237	EP		1024	0.03	-0.06	52						1.0
FKH	SN	19	237	ES		1024	2.39	0.03							1.0
HWQ	SZ	59	264	EP		1024	6.57	0.03							1.0
HWQ	SN	59	264	ES		1024	13.58	-0.00							1.0
BHL	BZ	98	241	EP		1024	12.84	-0.03							1.0
BHL	BN	98	241	ES		1024	24.58	-0.02							1.0
RCY	SZ	116	217	EP		1024	15.77	0.03							1.0
DQRL	SZ	117	233	EP		1024	15.89	0.02							1.0

September 25 2011 Hour: 15:35 30.9 Lat: 33.99N Lon: 36.19E Depth: 16 Agency: REL Local
Magnitudes: 2.9MC 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	35	36	EP		1535	37.13	-0.03	49						1.0
FKH	SE	35	36	ES		1535	41.80	0.02							1.0
HWQ	SZ	39	325	EP		1535	37.72	0.03							1.0
BHL	BZ	50	259	EP		1535	39.22	-0.07							1.0
DQRL	SZ	65	241	EP		1535	41.56	0.07							1.0
DQRL	SN	65	241	ES		1535	49.32	-0.00							1.0

September 26 2011 Hour: 9:16 25.2 Lat: 33.90N 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	12	271	EP		916	28.22	-0.00	46						1.0
BHL	BN	12	271	ES		916	30.45	-0.02							1.0
DQRL	SZ	29	222	EP		916	30.41	-0.06							1.0
DQRL	SN	29	222	ES		916	34.45	0.06							1.0
HWQ	SZ	44	20	EP		916	32.73	0.00							1.0
HWQ	SN	44	20	ES		916	38.33	0.02							1.0
FKH	SZ	69	57	EP		916	36.40	-0.01							1.0

September 27 2011 Hour: 10:38 55.9 Lat: 34.49N Lon: 36.77E 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	43	231	EP		1039	2.59	-0.21	54						1.0
HWQ	SZ	79	253	EP		1039	8.76	0.08							1.0
BHL	BZ	122	238	EP		1039	15.48	-0.03							1.0
RCY	SZ	140	218	EP		1039	18.45	0.03							1.0
RCY	SN	140	218	ES		1039	35.17	0.07							1.0
DQRL	SZ	141	232	EP		1039	18.60	0.09							1.0
DQRL	SN	141	232	ES		1039	35.22	-0.04							1.0

September 27 2011 Hour: 12: 8 19.0

Agency: REL Regional

EMSC OT=12:08:19.0 34.22N 23.67E 10Km M=5.3 CRETE, GREECE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1210	41.12								
HWQ	SZ			EP		1210	41.85								

September 27 2011 Hour: 15: 3 47.9 Lat: 33.78N Lon: 35.78E Depth: 2 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	320	EP		15 3	50.86	0.02	43						1.0
DQRL	SZ	21	246	EP		15 3	51.39	0.02							1.0
DQRL	SN	21	246	ES		15 3	53.90	-0.02							1.0
RCY	SZ	32	170	EP		15 3	53.15	-0.00							1.0

RCY	SN	32	170	ES		15	3	57.02	0.00										1.0
HWQ	SZ	57	16	EP		15	3	57.15	-0.01										1.0

September 27 2011 Hour: 15: 9 20.0 Lat: 34.57N Lon: 36.76E Depth: 1 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	SZ	82	247	EP		15	9	33.33	0.10						1.0
HWQ	SN	82	247	ES		15	9	42.91	-0.08						1.0
BHL	BZ	126	235	EP		15	9	40.33	-0.02	47					1.0
BHL	BN	126	235	ES		15	9	55.46	0.08						1.0
DQRL	SZ	146	229	EP		15	9	43.18	-0.08						1.0

September 27 2011 Hour: 15: 9 24.2 Lat: 34.38N Lon: 36.49E 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
FKH	SZ	16	205	EP		15	9	26.54	-0.27	38					1.0
FKH	SN	16	205	ES		15	9	28.86	0.09						1.0
HWQ	SZ	51	258	EP		15	9	32.50	0.12						1.0
BHL	BZ	93	236	EP		15	9	39.15	-0.02						1.0
DQRL	SZ	113	229	EP		15	9	42.30	-0.05						1.0
DQRL	SN	113	229	ES		15	9	55.86	0.04						1.0

September 27 2011 Hour: 16: 5 2.0 Lat: 34.60N Lon: 36.39E 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	39	178	EP		16	5	8.28	-0.03	47					1.0
FKH	SN	39	178	ES		16	5	12.97	0.01						1.0
HWQ	SZ	54	229	EP		16	5	10.68	-0.06						1.0
HWQ	SN	54	229	ES		16	5	17.19	0.00						1.0
BHL	BZ	102	222	EP		16	5	18.58	0.02						1.0
DQRL	SZ	124	218	EP		16	5	22.17	0.07						1.0
DQRL	SN	124	218	ES		16	5	36.93	-0.02						1.0

September 28 2011 Hour: 0:29 0.0

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		029	27.71								
HWQ	SZ			EP		029	27.53								

September 29 2011 Hour: 11:51 12.1 Lat: 33.59N Lon: 36.02E Depth: 16 Agency: REL Local
Magnitudes: 2.8MC 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	20	239	EP		1151	16.31	-0.02	44						1.0
RCY	SN	20	239	ES		1151	19.50	0.01							1.0
DQRL	SZ	44	287	EP		1151	19.53	0.03							1.0
DQRL	SN	44	287	ES		1151	25.01	0.00							1.0
BHL	BZ	49	316	EP		1151	20.16	-0.05							1.0
BHL	BN	49	316	ES		1151	26.25	0.00							1.0
HWQ	SZ	77	355	EP		1151	24.34	0.02							1.0

September 29 2011 Hour: 13:49 31.6 Lat: 33.78N Lon: 35.76E Depth: 6 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	324	EP		1349	34.49	-0.04	43						1.0
BHL	BE	17	324	ES		1349	36.71	0.00							1.0
DQRL	SZ	20	244	EP		1349	35.01	0.04							1.0
RCY	SZ	32	168	EP		1349	36.89	-0.07							1.0
RCY	SN	32	168	ES		1349	40.97	0.04							1.0
HWQ	SZ	58	17	EP		1349	40.99	0.04							1.0

September 30 2011 Hour: 20:40 14.0

Agency: REL Regional

EMSC OT=20:40:14.0 37.99N 35.16E 12Km M=4.5 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EP		2041	16.06								
FKH	SZ			EP		2041	17.08								
BHL	BZ			EP		2041	19.72								
DQRL	SZ			EP		2041	21.77								
RCY	SZ			EP		2041	25.77								

Epicentral Map of Lebanon

SEPTEMBER 2011

