

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

July

2011

Prepared by
The National Centre for Geophysical Research
Bhannes

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

*Tel : +9614-981885
Fax : +9614-981886
Email : geophys@cnrs.edu.lb*

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.

July 1 2011 Hour: 15:4 5.4 Lat: 34.25N Lon: 36.42E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC 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	1	218	EP		15	4	5.45-0.18							1.0
HWQ	BZ	44	274	EP		15	4	12.34-0.05	56						1.0
HWQ	BN	44	274	ES		15	4	17.61 0.02							1.0
BHL	BZ	80	241	EP		15	4	18.29-0.05							1.0
DQRL	SZ	99	232	EP		15	4	21.45 0.10							1.0
DQRL	SN	99	232	ES		15	4	33.07-0.12							1.0
RCY	SZ	100	213	EP		15	4	21.58 0.13							1.0
RCY	SN	100	213	ES		15	4	33.43 0.07							1.0

July 2 2011 Hour: 8:14 48.0 Lat: 33.82N Lon: 35.78E Depth: 16 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	308	EP		814	51.70	0.03	32						1.0
DQRL	SZ	23	237	EP		814	52.63-0.00								1.0
DQRL	SN	23	237	ES		814	56.05-0.01								1.0
RCY	SZ	36	172	EP		814	54.43 0.02								1.0
RCY	SE	36	172	ES		814	59.17 0.01								1.0
HWQ	BZ	53	17	EP		814	56.81-0.01								1.0

July 2 2011 Hour: 10:50 45.4 Lat: 33.27N Lon: 35.57E 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	35	45	EP		1050	51.02-0.04		32						1.0
RCY	SN	35	45	ES		1050	55.28 0.03								1.0
DQRL	SZ	48	0	EP		1050	53.17 0.04								1.0
HWQ	BZ	117	17	EP		1051	4.32 0.08								1.0

July 2 2011 Hour: 21:30 46.0 Agency: REL Regional
EMSC OT=21:30:46.0 36.49N 26.69E 120Km M=4.8 DODECANESE ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ			EP		2132	32.15								
NAQL	SZ			EP		2132	33.17								
BHL	BZ			EP		2132	33.00								
DQRL	SZ			EP		2132	33.92								
HWQ	BZ			EP		2132	35.84								
RCY	SZ			EP		2132	38.72								

July 3 2011 Hour: 9:25 33.2 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		925	38.87								
DQRL	SZ			EP		925	43.68								
HWQ	BZ			EP		925	51.10								

July 3 2011 Hour: 13:22 51.6 Lat: 33.79N Lon: 35.78E Depth: 8 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	318	EP		1322	54.59-0.05		38						1.0
DQRL	SZ	21	244	EP		1322	55.37 0.08								1.0
DQRL	SN	21	244	ES		1322	58.05-0.01								1.0
RCY	SZ	33	170	EP		1322	57.02-0.10								1.0
RCY	SN	33	170	ES		1323	1.26 0.02								1.0
HWQ	BZ	56	16	EP		1323	0.73-0.01								1.0

July 3 2011 Hour: 13:49 21.7 Lat: 32.91N Lon: 35.00E Depth: 1 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.0 secs

NORTH GALILEE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	27	30	EP		1349	26.06	-0.03							1.0
NAQL	SN	27	30	ES		1349	29.31	-0.01							1.0
RCY	SZ	102	50	EP		1349	38.15	-0.03	60						1.0
DQRL	SZ	104	31	EP		1349	38.48	0.06							1.0
BHL	BZ	126	29	EP		1349	42.14	0.02							1.0
HWQ	BZ	176	30	EP		1349	49.35	-0.04							1.0
HWQ	BN	176	30	ES		1350	9.87	0.01							1.0

July 3 2011 Hour: 13:56 10.5 Lat: 33.95N Lon: 36.28E Depth: 4 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	BZ	48	320	EP		1356	18.37	0.02	39						1.0
HWQ	BN	48	320	ES		1356	24.14	-0.00							1.0
BHL	BZ	58	266	EP		1356	19.94	-0.03							1.0
RCY	SZ	65	220	EP		1356	21.00	-0.02							1.0

July 3 2011 Hour: 14:59 15.0 Lat: 34.41N Lon: 36.60E 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	25	224	EP		1459	18.98	-0.06	52						1.0
FKH	SN	25	224	ES		1459	22.02	-0.04							1.0
HWQ	BZ	62	257	EP		1459	24.98	0.03							1.0
HWQ	BN	62	257	ES		1459	32.38	0.03							1.0
BHL	BZ	104	238	EP		1459	31.66	-0.03							1.0
DQRL	SZ	123	231	EP		1459	34.79	-0.01							1.0

July 3 2011 Hour: 15:43 41.9 Lat: 33.69N Lon: 35.65E Depth: 6 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

BEIRUT REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	8	279	EP		1543	43.67	0.02	61						1.0
DQRL	SN	8	279	ES		1543	44.90	-0.03							1.0
BHL	BZ	23	1	EP		1543	45.86	0.00	54						1.0
BHL	BN	23	1	ES		1543	48.82	0.05							1.0
RCY	SZ	28	142	EP		1543	46.62	0.02							1.0
RCY	SN	28	142	ES		1543	50.08	0.02							1.0
HWQ	BZ	70	23	EP		1543	53.28	-0.03							1.0

July 3 2011 Hour: 16:15 22.0 Agency: REL Regional
EMSC OT=16:15:22.0 35.81N 29.32E 30Km M=3.6 EASTERN MED SEA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1616	40.15								
DQRL	SZ			EP		1616	40.96								
HWQ	BZ			EP		1616	42.71								
RCY	SZ			EP		1616	45.53								

July 4 2011 Hour: 2:15 40.6 Lat: 33.87N Lon: 35.83E Depth: 9 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	17	285	EP		215	43.69	-0.06	61						1.0
DQRL	SZ	30	233	EP		215	45.67	0.02							1.0
DQRL	SN	30	233	ES		215	49.51	0.08							1.0
RCY	SZ	41	179	EP		215	47.43	0.03							1.0
RCY	SN	41	179	ES		215	52.46	-0.01							1.0
HWQ	BZ	47	13	EP		215	48.32	-0.01							1.0
FKH	SZ	68	52	EP		215	51.66	-0.04							1.0

FKH SE 68 52 ES 215 59.96 0.02 1.0

July 4 2011 Hour: 8:7 0.0

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		8	8	26.91							
RCY	SZ			EP		8	8	23.61							

July 4 2011 Hour: 11:20 16.3

Lat: 33.80N Lon: 35.77E 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	16	318	EP		1120	19.33	-0.00	60						1.0
BHL	BN	16	318	ES		1120	21.57	0.02							1.0
DQRL	SZ	21	241	EP		1120	20.01	-0.07							1.0
DQRL	SN	21	241	ES		1120	22.87	0.02							1.0
RCY	SZ	34	170	EP		1120	22.01	-0.02							1.0
RCY	SN	34	170	ES		1120	26.30	0.06							1.0
HWQ	BZ	56	17	EP		1120	25.48	0.03							1.0
HWQ	BN	56	17	ES		1120	32.16	-0.03							1.0

July 4 2011 Hour: 17:48 40.8

Lat: 34.08N Lon: 36.24E 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	24	41	EP		1748	44.70	0.01	44						1.0
FKH	SN	24	41	ES		1748	47.54	-0.02							1.0
HWQ	BZ	35	309	EP		1748	46.38	-0.01							1.0
HWQ	BE	35	309	ES		1748	50.49	-0.02							1.0
BHL	BZ	57	250	EP		1748	50.08	-0.00							1.0
DQRL	SZ	75	236	EP		1748	52.86	0.01							1.0

July 6 2011 Hour: 0:39 29.5

Lat: 32.93N Lon: 35.67E 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
NAQL	SZ	53	293	EP		039	38.12	0.02	40						1.0
NAQL	SN	53	293	ES		039	44.44	0.01							1.0
RCY	SZ	65	14	EP		039	39.93	-0.01							1.0
RCY	SN	65	14	ES		039	47.65	0.01							1.0
DQRL	SZ	86	354	EP		039	43.47	0.03							1.0
DQRL	SN	86	354	ES		039	53.75	0.03							1.0
BHL	BZ	108	359	EP		039	46.81	-0.11							1.0
HWQ	BZ	151	10	EP		039	53.83	0.09							1.0

July 6 2011 Hour: 16:45 25.7

Lat: 33.79N Lon: 35.78E 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	319	EP		1645	28.52	-0.05	39						1.0
BHL	BN	17	319	ES		1645	30.71	0.05							1.0
DQRL	SZ	21	244	EP		1645	29.26	0.06							1.0
DQRL	SN	21	244	ES		1645	31.72	-0.04							1.0
RCY	SZ	33	170	EP		1645	31.08	0.01							1.0
RCY	SN	33	170	ES		1645	35.00	-0.02							1.0
HWQ	BZ	57	16	EP		1645	34.80	-0.09							1.0

July 6 2011 Hour: 17:6 45.0

Lat: 33.79N Lon: 35.78E Depth: 5 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	17	318	EP		17	6	47.88	-0.01	38					1.0
BHL	BN	17	318	ES		17	6	50.02	-0.02						1.0
DQRL	SZ	21	244	EP		17	6	48.68	0.12						1.0
RCY	SZ	33	170	EP		17	6	50.38	-0.04						1.0

RCY	SN	33	170	ES		17	6	54.39	-0.05									1.0
HWQ	BZ	56	16	EP		17	6	54.06	-0.07									1.0

July 6 2011 Hour: 19:3 22.0

Agency: REL Distant

EMSC OT=19:03:22.0 29.26S 176.28W 40Km M=7.6 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1923	6.43								
BHL	BZ			EP		1923	7.09								
BEYL	BZ			EP		1923	7.20								

July 7 2011 Hour: 12:48 52.2

Lat: 33.87N Lon: 35.84E Depth: 4 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	282	EP		1248	55.08	-0.06	48						1.0
BHL	BN	17	282	ES		1248	57.32	0.01							1.0
DQRL	SZ	31	233	EP		1248	57.36	0.09							1.0
DQRL	SN	31	233	ES		1249	1.02	0.01							1.0
RCY	SZ	42	180	EP		1248	58.94	-0.05							1.0
RCY	SN	42	180	ES		1249	4.02	0.01							1.0
HWQ	BZ	46	13	EP		1248	59.70	-0.00							1.0

July 7 2011 Hour: 22:33 35.6

Lat: 33.78N Lon: 35.79E Depth: 3 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	19	317	EP		2233	38.61	-0.08	35						1.0
BHL	BE	19	317	ES		2233	41.03	0.02							1.0
DQRL	SZ	22	248	EP		2233	39.27	0.05							1.0
RCY	SZ	32	173	EP		2233	40.71	-0.02							1.0
RCY	SN	32	173	ES		2233	44.52	-0.04							1.0
HWQ	BZ	57	14	EP		2233	44.77	-0.02							1.0

July 8 2011 Hour: 3:40 25.0

Agency: REL Distant

EMSC OT=03:40:25.0 29.19S 176.86W 30Km M=5.4 KERMADEC ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		4	0	17.85							
BHL	BZ			EP		4	0	18.82							
RCY	SZ			EP		4	0	18.71							
DQRL	SZ			EP		4	0	19.18							

July 8 2011 Hour: 17:44 58.5

Lat: 33.71N Lon: 36.08E Depth: 0 Agency: REL Local

Magnitudes: 3.0MC 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	33	223	EP		1745	3.78	-0.02	61						1.0
RCY	SE	33	223	ES		1745	7.76	0.03							1.0
BHL	BZ	45	298	EP		1745	5.69	0.02							1.0
DQRL	SZ	47	269	EP		1745	6.09	0.01							1.0
DQRL	SN	47	269	ES		1745	11.66	-0.02							1.0
HWQ	BZ	64	349	EP		1745	8.85	0.07							1.0
FKH	SZ	67	28	EP		1745	9.32	0.10							1.0
FKH	SE	67	28	ES		1745	17.17	0.01							1.0

July 9 2011 Hour: 9:7 22.8

Lat: 33.78N Lon: 35.77E Depth: 6 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		9	7	25.75	-0.05	39					1.0
DQRL	SZ	20	245	EP		9	7	26.31	-0.00						1.0
DQRL	SN	20	245	ES		9	7	28.94	0.03						1.0
RCY	SZ	33	169	EP		9	7	28.20	-0.01						1.0
RCY	SN	33	169	ES		9	7	32.14	-0.07						1.0
HWQ	BZ	57	17	EP		9	7	32.09	-0.01						1.0

July 9 2011 Hour: 13:54 24.0 Agency: REL Distant
EMSC OT=13:54:24.0 29.08S 177.06W 40Km M=5.7 KERMADEC ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1414 14.07
 HWQ BZ EP 1414 13.59

July 9 2011 Hour: 15: 2 27.0 Agency: REL Distant
EMSC OT=15:02:27.0 29.24S 176.98W 10Km M=5.8 KERMADEC ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ BZ EP 1522 22.32
 BHL BZ EP 1522 23.29
 DQRL SZ EP 1522 23.29

July 9 2011 Hour: 19:35 18.0 Agency: REL Distant
EMSC OT=19:35:18.0 29.39S 176.98W 10Km M=5.8 KERMADEC ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1954 33.41
 HWQ BZ EP 1954 32.79

July 10 2011 Hour: 0:57 13.0 Agency: REL Distant
EMSC OT=00:57:13.0 38.05N 143.29E 40Km M=7.1 COAST OF HONSHU
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 FKH SZ EP 1 9 25.72
 HWQ BZ EP 1 9 26.68
 BHL BZ EP 1 9 28.95
 BEYL BZ EP 1 9 29.38
 DQRL SZ EP 1 9 30.11
 RCY SZ EP 1 9 29.96

July 10 2011 Hour: 4: 9 21.0 Agency: REL Regional
EMSC OT=04:09:21.0 36.61N 26.77E 168Km M=4.2 DODECANESE ISLANDS
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 411 7.13
 DQRL SZ EP 411 7.92
 HWQ BZ EP 411 9.93
 RCY SZ EP 411 12.50

July 10 2011 Hour: 14: 3 4.7 Lat: 33.78N Lon: 35.76E 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 17 323 EP 14 3 7.33 0.01 43 1.0
 DQRL SZ 20 244 EP 14 3 7.90 0.07 1.0
 DQRL SN 20 244 ES 14 3 10.14-0.04 1.0
 RCY SZ 33 168 EP 14 3 9.95 0.02 1.0
 RCY SN 33 168 ES 14 3 13.84 0.00 1.0
 HWQ BZ 57 17 EP 14 3 13.85-0.06 1.0

July 11 2011 Hour: 15:27 1.3 Lat: 33.78N Lon: 35.77E 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 18 323 EP 1527 4.13-0.10 47 1.0
 BHL BE 18 323 ES 1527 6.40 0.03 1.0
 DQRL SZ 20 247 EP 1527 4.60 0.03 1.0
 DQRL SN 20 247 ES 1527 6.94-0.02 1.0
 RCY SZ 32 169 EP 1527 6.42-0.01 1.0
 RCY SN 32 169 ES 1527 10.19 0.00 1.0
 HWQ BZ 58 16 EP 1527 10.77 0.04 1.0
 HWQ BN 58 16 EP 1527 17.67-0.00 1.0

July 11 2011 Hour: 16:18 1.3 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	18	323	EP		1618	4.12	-0.01							1.0
DQRL	SZ	20	247	EP		1618	4.53	0.01							1.0
DQRL	SN	20	247	ES		1618	6.89	-0.01							1.0
RCY	SZ	32	169	EP		1618	6.39	-0.02	38						1.0
RCY	SN	32	169	ES		1618	10.22	0.02							1.0
HWQ	BZ	58	16	EP		1618	10.67	0.03							1.0

July 11 2011 Hour: 20:47 4.0 Agency: REL Distant

EMSC OT=20:47:04.0 09.60N 122.26E 20Km M=6.4 PHILIPPINES

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2059	23.27								
HWQ	BZ			EP		2059	22.15								

July 12 2011 Hour: 18:17 8.4 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	18	323	EP		1817	11.18	-0.07	39						1.0
BHL	BE	18	323	ES		1817	13.34	-0.01							1.0
DQRL	SZ	20	247	EP		1817	11.67	0.01							1.0
DQRL	SN	20	247	ES		1817	14.09	0.03							1.0
RCY	SZ	32	169	EP		1817	13.54	-0.00							1.0
HWQ	BZ	58	16	EP		1817	17.80	0.07							1.0

July 13 2011 Hour: 15: 6 28.0 Lat: 33.87N Lon: 35.83E Depth: 7 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	282	EP		15 6	31.00	-0.01	49						1.0
DQRL	SZ	30	232	EP		15 6	33.13	0.03							1.0
DQRL	SN	30	232	ES		15 6	36.89	0.02							1.0
RCY	SZ	42	179	EP		15 6	34.98	0.07							1.0
RCY	SN	42	179	ES		15 6	40.05	0.02							1.0
HWQ	BZ	46	14	EP		15 6	35.58	0.01							1.0

July 14 2011 Hour: 11:59 53.7 Lat: 33.89N Lon: 36.31E 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
HWQ	BZ	55	322	EP		12 0	2.57	0.03							1.0
BHL	BZ	61	272	EP		12 0	3.55	0.01							0.2
RCY	SZ	62	226	EP		12 0	3.63	-0.09	53						1.0
RCY	SN	62	226	ES		12 0	11.18	0.04							1.0
DQRL	SZ	72	254	EP		12 0	5.29	0.01							0.2

July 16 2011 Hour: 9:56 18.2 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	320	EP		956	21.09	-0.02	34						1.0
BHL	BN	18	320	ES		956	23.27	0.01							1.0
DQRL	SZ	21	247	EP		956	21.63	0.02							1.0
RCY	SZ	32	170	EP		956	23.38	0.01							1.0
RCY	SN	32	170	ES		956	27.23	0.03							1.0
HWQ	BZ	57	16	EP		956	27.45	-0.00							1.0

July 16 2011 Hour: 12:21 11.4 Lat: 34.44N Lon: 36.82E Depth: 0 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	83	258	EP		1221	24.96	0.21	67						1.0
HWQ	BE	83	258	ES		1221	34.58	-0.03							1.0
BHL	BZ	123	242	EP		1221	31.40	0.15							1.0
RCY	SZ	139	222	EP		1221	33.79	0.05							1.0
DQRL	SZ	141	235	EP		1221	34.07	-0.04							1.0
DQRL	SE	141	235	ES		*1221	50.37	-0.53							0.0

July 16 2011 Hour: 14:46 16.8 Lat: 33.78N Lon: 35.77E Depth: 5 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	322	EP		1446	19.87	-0.02	54						1.0
BHL	BN	18	322	ES		1446	22.18	0.02							1.0
DQRL	SZ	20	247	EP		1446	20.28	0.01							1.0
DQRL	SN	20	247	ES		1446	22.86	0.02							1.0
BEYL	BZ	28	292	EP		1446	21.37	-0.05							1.0
RCY	SZ	32	170	EP		1446	22.03	-0.01							1.0
RCY	SE	32	170	ES		1446	25.98	0.07							1.0
HWQ	BZ	58	16	EP		1446	26.24	0.04							1.0

July 17 2011 Hour: 16:32 56.7 Lat: 33.79N Lon: 35.78E 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	319	EP		1632	59.61	0.03	37						1.0
BHL	BN	17	319	ES		1633	1.68	-0.01							1.0
DQRL	SZ	21	244	EP		1633	0.24	0.03							1.0
DQRL	SN	21	244	ES		1633	2.78	-0.01							1.0
RCY	SZ	33	170	EP		1633	2.08	-0.00							1.0
HWQ	BZ	57	16	EP		1633	5.85	-0.04							1.0

July 17 2011 Hour: 17:29 57.2 Lat: 33.79N 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	17	318	EP		1730	0.04	-0.03	39						1.0
DQRL	SZ	22	245	EP		1730	0.78	0.05							1.0
DQRL	SN	22	245	ES		1730	3.34	0.01							1.0
RCY	SZ	33	171	EP		1730	2.48	-0.04							1.0
RCY	SE	33	171	ES		1730	6.47	0.02							1.0
HWQ	BZ	56	16	EP		1730	6.31	-0.02							1.0

July 18 2011 Hour: 11:38 15.1 Lat: 34.39N Lon: 36.56E Depth: 1 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	21	220	EP		1138	18.52	-0.02	66						1.0
HWQ	BZ	58	258	EP		1138	24.48	0.08							1.0
HWQ	BN	58	258	ES		1138	31.29	0.00							1.0
BHL	BZ	99	237	EP		1138	31.11	-0.01							1.0
DQRL	SZ	119	230	EP		1138	34.27	0.02							1.0
DQRL	SN	119	230	ES		1138	48.40	-0.03							1.0
RCY	SZ	120	214	EP		1138	34.40	0.00							1.0
RCY	SN	120	214	ES		1138	48.69	0.01							1.0

July 18 2011 Hour: 18:15 25.0

Agency: REL Distant

EMSC OT=18:15:25.0 52.84N 152.95E 499Km M=5.2 KURIL ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1826	28.55								
HWQ	BZ			EP		1826	28.88								
BHL	BZ			EP		1826	31.39								
DQRL	SZ			EP		1826	32.98								
RCY	SZ			EP		1826	33.23								

July 19 2011 Hour: 10:52 43.9

Lat: 33.97N Lon: 36.21E Depth: 0 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	BZ	42	324	EP		1052	50.59	0.01							1.0
HWQ	BN	42	324	ES		1052	55.53	-0.00							1.0
BHL	BZ	52	261	EP		1052	52.28	0.00							1.0
RCY	SZ	64	213	EP		1052	54.16	0.04	38						1.0
RCY	SN	64	213	ES		1053	1.66	-0.04							1.0

July 19 2011 Hour: 16:51 46.4

Lat: 33.79N Lon: 35.78E 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	317	EP		1651	49.31	-0.06	40						1.0
DQRL	SZ	21	243	EP		1651	50.11	0.04							1.0
DQRL	SN	21	243	ES		1651	52.86	0.04							1.0
RCY	SZ	34	170	EP		1651	51.91	-0.04							1.0
RCY	SN	34	170	ES		1651	56.12	0.03							1.0
HWQ	BZ	56	16	EP		1651	55.50	0.01							1.0

July 19 2011 Hour: 19:35 42.0

Agency: REL Distant

EMSC OT=19:35:42.0 40.12N 71.46E 10Km M=6.1 KYRGYZSTAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1941	38.20								
HWQ	BZ			EP		1941	41.24								
BHL	BZ			EP		1941	45.04								
RCY	SZ			EP		1941	44.88								
DQRL	SZ			EP		1941	46.02								

July 20 2011 Hour: 10:33 29.1

Lat: 34.16N Lon: 35.74E Depth: 20 Agency: REL Local

Magnitudes: 3.0MC REL

Rms: 0.1 secs

KESROUANE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	23	54	EP		1033	34.11	0.01	58						1.0
HWQ	BN	23	54	ES		1033	37.84	0.04							1.0
BHL	BZ	29	196	EP		1033	34.66	-0.14							1.0
BHL	BN	29	196	ES		1033	38.98	-0.04							1.0
DQRL	SZ	53	198	EP		1033	37.98	0.02							1.0
RCY	SZ	74	173	EP		1033	41.06	0.02							1.0
RCY	SE	74	173	ES		1033	49.94	0.06							1.0

July 20 2011 Hour: 12:20 32.5

Lat: 34.41N Lon: 36.65E Depth: 5 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	28	231	EP		1220	37.05	-0.18	49						1.0
HWQ	BZ	66	258	EP		1220	43.37	0.11							1.0
HWQ	BN	66	258	ES		1220	51.22	0.03							1.0
DQRL	SZ	126	232	EP		1220	52.73	0.07							1.0
RCY	SZ	126	217	EP		1220	52.58	-0.04							1.0
RCY	SE	126	217	ES		1221	7.38	-0.10							1.0

July 21 2011 Hour: 9:25 43.3 Lat: 33.81N Lon: 35.80E Depth: 12 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	308	EP		925	46.87	0.05	32						1.0
BHL	BE	17	308	ES		925	49.42	-0.01							1.0
DQRL	SZ	24	241	EP		925	47.68	-0.08							1.0
RCY	SZ	35	174	EP		925	49.37	0.01							1.0
RCY	SE	35	174	ES		925	53.89	0.04							1.0
HWQ	BZ	54	15	EP		925	52.28	0.03							1.0

July 21 2011 Hour: 11: 8 54.2 Lat: 33.76N Lon: 35.95E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

CENTRAL BEKAA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	31	200	EP		11 8	59.25	0.02							1.0
RCY	SN	31	200	ES		11 9	2.96	-0.02							1.0
BHL	BZ	32	300	EP		11 8	59.29	-0.02	34						1.0
BHL	BN	32	300	ES		11 9	3.08	-0.03							1.0
DQRL	SZ	36	260	EP		11 9	0.01	0.03							1.0
HWQ	BZ	57	359	EP		11 9	3.47	0.06							1.0
HWQ	BN	57	359	ES		11 9	10.24	-0.01							1.0

July 21 2011 Hour: 11:32 6.2 Lat: 33.78N Lon: 35.76E 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	325	EP		1132	9.01	-0.01	41						1.0
DQRL	SZ	20	246	EP		1132	9.45	0.06							1.0
DQRL	SN	20	246	ES		1132	11.75	-0.02							1.0
RCY	SZ	32	168	EP		1132	11.46	0.07							1.0
RCY	SN	32	168	ES		1132	15.28	0.03							1.0
HWQ	BZ	58	17	EP		1132	15.54	-0.02							1.0
HWQ	BN	58	17	ES		1132	22.56	0.06							1.0

July 21 2011 Hour: 14:47 1.5 Lat: 34.47N Lon: 36.81E 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
HWQ	BZ	82	255	EP		1447	14.72	-0.02	47						1.0
RCY	SZ	141	220	EP		1447	24.11	0.00							1.0

July 22 2011 Hour: 6:56 40.0 Agency: REL Distant
EMSC OT=06:56:40.0 20.27S 178.54W 602Km M=6.0 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		715	16.11								
HWQ	BZ			EP		715	14.94								

July 24 2011 Hour: 10:25 0.0 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		1025	10.76								
RCY	SZ			EP		1025	10.28								

July 24 2011 Hour: 10:45 48.3 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1046	3.75								
RCY	SZ			EP		1046	12.17								
DQRL	SZ			EP		1046	12.59								

July 24 2011 Hour: 17:52 9.0 Lat: 33.78N Lon: 35.77E 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	17	320	EP		1752	11.92	0.06	38						1.0
BHL	BN	17	320	ES		1752	13.97	-0.01							1.0
DQRL	SZ	21	245	EP		1752	12.36	-0.05							1.0
RCY	SZ	32	170	EP		1752	14.28	0.01							1.0
RCY	SE	32	170	ES		1752	18.14	-0.03							1.0
HWQ	BZ	57	16	EP		1752	18.14	-0.07							1.0

July 24 2011 Hour: 18:51 26.2 Agency: REL Distant

EMSC OT=18:51:26.2 37.78N 141.41E 49Km M=6.3 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		19 3	32.06								
HWQ	BZ			EP		19 3	31.74								
BHL	BZ			EP		19 3	34.76								
DQRL	SZ			EP		19 3	36.55								
RCY	SZ			EP		19 3	36.48								

July 24 2011 Hour: 20:13 12.7 Lat: 35.20N Lon: 37.03E Depth: 0 Agency: REL Regional

Magnitudes: 3.2MC REL Rms: 0.1 secs

SYRIA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	120	208	EP		2013	32.01	0.01	66						1.0
FKH	SN	120	208	ES		2013	46.27	-0.02							1.0
HWQ	BZ	142	225	EP		2013	35.35	-0.16							1.0
HWQ	BN	142	225	ES		2013	52.46	0.05							1.0
BHL	BZ	191	222	EP		2013	42.56	0.03							1.0
DQRL	SZ	213	219	EP		2013	45.33	0.09							1.0

July 25 2011 Hour: 17:15 44.0 Agency: REL Distant

EMSC OT=17:15:44.0 14.99N 120.15E 60Km M=6.0 LUZON, PHILIPPINES

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1727	29.77								
HWQ	BZ			EP		1727	31.32								
BHL	BZ			EP		1727	32.88								
RCY	SZ			EP		1727	33.10								
DQRL	SZ			EP		1727	34.05								

July 26 2011 Hour: 1:36 1.9 Lat: 31.87N Lon: 35.65E Depth: 24 Agency: REL Regional

Magnitudes: 3.2MC REL Rms: 1.2 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	181	5	EP		136	28.77	0.45	66						1.0
RCY	SN	181	5	ES		136	45.37	-2.52							1.0
DQRL	SZ	204	358	EP		136	31.50	0.43							1.0
DQRL	SN	204	358	ES		136	51.23	-1.45							1.0
BHL	BZ	226	0	EP		136	35.20	1.40							1.0
BHL	BN	226	0	ES		136	57.83	0.42							1.0
HWQ	BZ	269	6	EP		136	41.14	2.00							1.0
HWQ	BN	269	6	ES		137	7.50	0.78							1.0

July 26 2011 Hour: 22:48 13.2 Lat: 34.05N Lon: 36.95E Depth: 3 Agency: REL Local

Magnitudes: 3.0MC REL Rms: 0.0 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	54	294	EP		2248	21.99	-0.01	56						1.0
HWQ	BZ	96	286	EP		2248	28.76	0.06							1.0
HWQ	BE	96	286	ES		2248	40.12	-0.04							1.0
RCY	SZ	120	240	EP		2248	32.52	-0.02							1.0
RCY	SE	120	240	ES		2248	46.88	0.04							1.0
BHL	BZ	121	263	EP		2248	32.58	-0.06							1.0

July 27 2011 Hour: 9:58 14.0 Agency: REL Regional

EMSC OT=09:58:14.0 38.33N 31.88E 18Km M=4.8 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		959	41.01								
HWQ	BZ			EP		959	32.97								

July 27 2011 Hour: 15: 9 5.9 Lat: 33.88N Lon: 35.82E Depth: 11 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	281	EP		15	9	9.17-0.01	43						1.0
BHL	BN	16	281	ES		15	9	11.57-0.02							1.0
DQRL	SZ	30	231	EP		15	9	11.20 0.03							1.0
DQRL	SN	30	231	ES		15	9	15.07 0.01							1.0
RCY	SZ	42	179	EP		15	9	12.99-0.01							1.0
RCY	SN	42	179	ES		15	9	18.27 0.02							1.0
HWQ	BZ	46	14	EP		15	9	13.63 0.03							1.0
HWQ	BN	46	14	ES		15	9	19.29 0.00							1.0

July 28 2011 Hour: 2:18 10.0 Lat: 33.86N Lon: 35.83E Depth: 5 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	288	EP		218	12.97-0.01	61							1.0
DQRL	SZ	29	235	EP		218	14.89-0.00								1.0
DQRL	SE	29	235	ES		218	18.48-0.00								1.0
BEYL	BZ	31	273	EP		218	15.25 0.09								1.0
RCY	SZ	40	179	EP		218	16.57-0.01								1.0
RCY	SN	40	179	ES		218	21.43 0.00								1.0
HWQ	BZ	48	13	EP		218	17.82 0.00								1.0
HWQ	BN	48	13	ES		218	23.58 0.00								1.0

July 28 2011 Hour: 2:24 49.8 Lat: 33.86N Lon: 35.83E 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	17	286	EP		224	52.79 0.05	34							1.0
BHL	BN	17	286	ES		224	54.95-0.00								1.0
DQRL	SZ	30	234	EP		224	54.69-0.01								1.0
RCY	SZ	41	179	EP		224	56.51 0.06								1.0
RCY	SN	41	179	ES		225	1.39-0.01								1.0
HWQ	BZ	47	13	EP		224	57.40-0.08								1.0

July 28 2011 Hour: 10:38 58.4 Lat: 33.71N Lon: 36.74E Depth: 0 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.0 secs

DAMASCUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	67	333	EP		1039	9.13-0.06	67							1.0
RCY	SZ	88	254	EP		1039	12.56 0.00								1.0
HWQ	BZ	97	311	EP		1039	14.07 0.02								1.0
HWQ	BN	97	311	ES		1039	25.68 0.07								1.0

July 28 2011 Hour: 10:42 2.2 Lat: 34.40N Lon: 36.70E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

NEBEK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	32	237	EP		1042	7.19-0.08	61							1.0
HWQ	BZ	71	259	EP		1042	13.55-0.01								1.0
BHL	BZ	111	241	EP		1042	20.11 0.05								1.0
DQRL	SZ	129	234	EP		1042	23.10 0.04								1.0

July 28 2011 Hour: 13:15 34.1 Lat: 34.57N Lon: 36.41E Depth: 1 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	36	180	EP		1315	40.01	-0.01	51						1.0
FKH	SN	36	180	ES		1315	44.41	0.04							1.0
HWQ	BZ	54	232	EP		1315	42.69	-0.09							1.0
HWQ	BN	54	232	ES		1315	49.07	-0.10							1.0
BHL	BZ	102	223	EP		1315	50.53	0.01							1.0

July 28 2011 Hour: 16:54 41.8 Lat: 34.57N Lon: 36.40E Depth: 3 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	36	178	EP		1654	47.68	-0.05							1.0
FKH	SN	36	178	ES		1654	52.12	0.02							1.0
HWQ	BZ	53	232	EP		1654	50.50	0.10							1.0
HWQ	BN	53	232	ES		1654	56.72	-0.01							1.0
BHL	BZ	101	223	EP		1654	58.12	-0.02							1.0
DQRL	SZ	123	219	EP		1655	1.52	-0.04							1.0

July 28 2011 Hour: 16:57 1.8 Lat: 33.21N Lon: 35.34E Depth: 1 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	56	55	EP		1657	10.83	0.01	24						1.0
RCY	SN	56	55	ES		1657	17.44	-0.03							1.0
DQRL	SZ	59	21	EP		1657	11.29	-0.04	35						1.0
DQRL	SN	59	21	ES		1657	18.34	-0.02							1.0
BHL	BZ	82	20	EP		1657	15.06	-0.03							1.0
HWQ	BZ	131	25	EP		1657	22.94	0.02							1.0
HWQ	BN	131	25	ES		1657	38.53	-0.01							1.0

July 28 2011 Hour: 18:3 32.2 Lat: 33.77N Lon: 35.77E 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	325	EP		18 3	35.02	-0.10	36						1.0
BHL	BN	18	325	ES		18 3	37.26	-0.01							1.0
DQRL	SZ	20	248	EP		18 3	35.42	0.03							1.0
DQRL	SN	20	248	ES		18 3	37.79	0.05							1.0
RCY	SZ	31	168	EP		18 3	37.26	-0.01							1.0
RCY	SN	31	168	ES		18 3	40.99	-0.01							1.0
HWQ	BZ	59	16	EP		18 3	41.69	0.03							1.0

July 28 2011 Hour: 22:38 42.3 Lat: 33.79N Lon: 35.80E Depth: 5 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	19	314	EP		2238	45.48	-0.02	33						1.0
BHL	BN	19	314	ES		2238	47.85	-0.01							1.0
DQRL	SZ	23	247	EP		2238	46.23	0.05							1.0
RCY	SZ	33	174	EP		2238	47.65	-0.04							1.0
RCY	SN	33	174	ES		2238	51.62	-0.04							1.0
HWQ	BZ	56	14	EP		2238	51.41	-0.02							1.0

July 29 2011 Hour: 7:42 24.0 Agency: REL Distant
EMSC OT=07:42:24.0 23.68S 179.77E 534Km M=6.6 FIJI ISLANDS

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		8 1	4.01								
HWQ	BZ			EP		8 1	2.97								

July 30 2011 Hour: 18:21 28.7 Lat: 34.21N Lon: 35.45E Depth: 4 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	39	151	EP		1821	35.00	-0.08	46						1.0
BHL	BE	39	151	ES		1821	39.81	-0.01							1.0
HWQ	BZ	47	81	EP		1821	36.24	-0.00							1.0
HWQ	BE	47	81	ES		1821	41.88	0.04							1.0
DQRL	SZ	58	169	EP		1821	38.05	0.06							1.0
RCY	SZ	87	156	EP		1821	42.78	-0.01							1.0
RCY	SE	87	156	ES		1821	53.21	-0.02							1.0

July 30 2011 Hour: 19: 5 0.0 Agency: REL Distant

EMSC OT=18:53:51.0 36.94N 141.11E 42Km M=6.4 COAST OF HONSHU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		19 6	2.79								
HWQ	BZ			EP		19 6	0.48								

July 30 2011 Hour: 22:13 53.0 Lat: 33.07N Lon: 35.65E Depth: 0 Agency: REL Local
Magnitudes: 3.3MC REL Rms: 0.1 secs

NORTH GALILEE

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
NAQL	SZ	47	276	EP		2214	0.63	0.02							1.0
RCY	SZ	50	21	EP		2214	1.06	0.01							1.0
RCY	SE	50	21	ES		2214	7.07	0.05							1.0
DQRL	SZ	70	354	EP		2214	4.36	0.04							1.0
DQRL	SN	70	354	ES		2214	12.70	-0.02							1.0
BEYL	BZ	90	351	EP		2214	7.45	0.04							1.0
BHL	BZ	92	0	EP		2214	7.73	-0.09	79						1.0
HWQ	BZ	136	12	EP		2214	15.05	0.09							1.0
FKH	SZ	148	28	EP		2214	16.63	-0.02							1.0

July 31 2011 Hour: 16:37 58.6 Lat: 34.50N Lon: 36.29E Depth: 9 Agency: REL Local
Magnitudes: 2.6MC 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	31	160	EP		1638	3.85	0.01	34						1.0
FKH	SN	31	160	ES		1638	7.68	-0.01							1.0
HWQ	BZ	41	232	EP		1638	5.38	-0.02							1.0
HWQ	BN	41	232	ES		1638	10.41	0.01							1.0
BHL	BZ	89	222	EP		1638	13.07	0.06							0.2

Epicentral Map of Lebanon

JULY 2011

