

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

January

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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 of 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 location 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 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 coda duration. The coda wave magnitude is estimated via the formula:

$$M_c = 0.08 + 1.63 * \log_{10}(T) + 0.009 * D.$$

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

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

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

STATIONS USED

The stations listed below are operated by the National Centre for Geophysical Research. They form 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 to mention 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	3414.13N	3624.11E	1170	FAKEHEH	Opened Dec 2004
RCY	3329.08N	3549.13E	1360	RACHAYA	Scheduled 2003
DWR	3323.13N	3524.08E	420	DWEIR	Scheduled 2003

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 will be available for download in pdf format on:
<http://www.cnrs.edu.lb/research/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.ifjff.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. Geophysical Research Lebanon

MAGNITUDES: Up to 3 different magnitudes can be given followed by type and reporting agency, e.g. 3.1 MC GRL - coda magnitude calculated according to GRL standard parameters.

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 ($0.5 \times (\text{peak to peak})$), (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.

January 1 2006 Hour: 8:54 54.8 Sumatra M=5.8 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		857	31.06								

January 1 2006 Hour: 10:20 38.1 Lat: 33.74N Lon: 37.23E Depth: 48 Agency: REL Local
Magnitudes: 3.2MC REL Rms: 0.1 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	94	306	EPg		1020	53.07	-0.2	75						1.0
FKH	SN	94	306	ESg		1021	4.54	0.1							1.0
HWQ	SZ	133	297	EPg		1020	57.89	0.0							1.0
HWQ	SN	133	297	ESg		1021	12.59	0.0							1.0
BHL	SZ	147	278	EPg		1020	59.88	0.2							1.0
BHL	SE	147	278	ESg		1021	15.45	-0.1							1.0

January 1 2006 Hour: 14:47 54.5 Lat: 34.65N Lon: 36.42E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.5 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	46	183	EPg		1448	1.45	-0.5	57						1.0
FKH	SE	46	183	ESg		1448	7.66	0.2							1.0
HWQ	SZ	61	227	EPg		1448	4.63	0.4							1.0
HWQ	SE	61	227	ESg		1448	10.69	-0.8							1.0
BHL	SZ	109	221	EPg		1448	12.20	0.1							1.0
BHL	SN	109	221	ESg		1448	25.63	0.5							1.0

January 2 2006 Hour: 4:24 11.0 Fiji M=5.7 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		424	39.85								
BHL	BZ			EP		424	41.38								

January 2 2006 Hour: 6:19 31.2 S W Atlantic M=7.3 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		625	4.11								

January 2 2006 Hour: 9:17 1.7 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			IPg		918	6.20								
BHL	BN			ISg		918	8.90								
HWQ	SZ			IPg		918	9.93								
HWQ	SE			ISg		918	15.10								

January 2 2006 Hour: 9:56 0.1 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EPn		957	18.76								
HWQ	SN			Sn		957	49.78								
FKH	SN			Sn		957	46.27								
BHL	SN			Sn		957	42.37								

January 2 2006 Hour: 12:41 51.4 Lat: 33.63N Lon: 35.73E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.1 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	31	348	IPg		1241	56.38	0.0	58						1.0
BHL	BN	31	348	ISg		1241	59.95	-0.1							1.0
MATL	SZ	40	246	EPg		1241	57.93	0.0							1.0
HWQ	SZ	74	16	EPg		1242	3.22	-0.2							1.0
HWQ	SN	74	16	ESg		1242	12.39	0.1							1.0

January 2 2006 Hour: 17:31 3.1 Lat: 34.10N Lon: 36.74E Depth: 33 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.2 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	35	296	EPg		1731	10.85	0.2	60						1.0
FKH	SN	35	296	ESg		1731	16.06	-0.1							1.0
HWQ	SZ	76	285	EPg		1731	16.03	0.2							1.0
HWQ	SN	76	285	ESg		1731	25.13	-0.1							1.0

BHL	SZ	103	258	EPg		1731	19.16	-0.4									1.0
BHL	SE	103	258	ESg		1731	32.01	0.2									1.0

January 2 2006 Hour: 22:28 12.4 Fiji M=7.1 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2232	14.84								
FKH	SZ			EP		2232	16.50								

January 3 2006 Hour: 0:58 30.5 Fiji M=5.6 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		059	26.64								
FKH	SZ			EP		059	25.43								

**January 3 2006 Hour: 7:16 59.4 Lat: 35.89N Lon: 36.56E Depth: 0 Agency: REL Regional
Magnitudes: 3.3MC REL Rms: 1.0 secs**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	184	185	EPn		717	27.53	-0.9							1.0
FKH	SE	184	185	Sn		717	50.59	0.7							1.0
HWQ	SZ	187	198	EPn		717	27.76	-1.0		77					1.0
HWQ	SE	187	198	Sn		717	49.89	-0.7							1.0
BHL	SZ	235	201	EPn		717	36.58	1.9							1.0
BHL	SE	235	201	Sn		718	0.81	-0.1							1.0

**January 3 2006 Hour: 10: 6 33.5 Lat: 33.47N Lon: 35.31E Depth: 15 Agency: REL Local
Magnitudes: 3.2MC REL Rms: 1.6 secs**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MATL	SZ	3	45	EPg		10 6	35.40	-0.6							1.0
BHL	SZ	58	34	EPg		10 6	42.78	-0.3							1.0
BHL	SN	58	34	ESg		10 6	51.98	1.8							1.0
HWQ	SZ	108	33	EPg		10 6	51.83	1.5		76					1.0
HWQ	SN	108	33	ESg		10 7	0.35	-2.5							1.0

January 3 2006 Hour: 11:10 0.6 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EPg		1110	39.92								
FKH	SN			ESg		1110	49.51								
HWQ	SZ			EPg		1110	46.64								
HWQ	SN			ESg		1110	59.17								

**January 3 2006 Hour: 13:42 49.1 Lat: 34.47N Lon: 36.79E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.5 secs**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	44	233	EPg		1342	55.88	-0.4		51					1.0
FKH	SE	44	233	ESg		1343	1.40	-0.2							1.0
HWQ	SZ	81	255	EPg		1343	2.78	0.7							1.0
HWQ	SE	81	255	ESg		1343	11.14	-0.5							1.0
BHL	SZ	122	239	EPg		1343	8.47	-0.3							1.0
BHL	SN	122	239	ESg		1343	24.08	0.7							1.0

January 4 2006 Hour: 3:18 0.8 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EPg		318	56.63								
FKH	SN			ESg		319	0.16								
HWQ	SZ			EPg		318	59.63								
HWQ	SE			ESg		319	6.08								

January 4 2006 Hour: 8:43 12.7 California M=6.6 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		849	28.75								

January 5 2006 Hour: 3:48 0.2 Turkey M=3.9 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	SZ			EPn		349	0.91								
HWQ	SZ			EPn		348	56.89								

January 5 2006 Hour: 13:58 1.3 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPg		1358	59.30								
HWQ	SN			ESg		1359	10.48								
BHL	SZ			EPg		1359	8.15								
BHL	SN			ISg		1359	22.59								

January 5 2006 Hour: 23:27 42.0 Lat: 33.59N Lon: 36.10E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	54	310	EPg		2327	50.21	-0.4							1.0
BHL	BE	54	310	ESg		2327	56.91	-0.1							1.0
MATL	SZ	72	261	EPg		2327	53.90	0.3							1.0
HWQ	SZ	77	350	EPg		2327	54.22	-0.2	59						1.0
HWQ	SN	77	350	ESg		2328	4.00	0.3							1.0

January 6 2006 Hour: 22:54 47.9 Lat: 33.93N Lon: 35.40E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.6 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	23	97	IPg		2254	50.56	-1.1							1.0
BHL	BE	23	97	ESg		2254	54.92	0.5							1.0
MATL	SZ	50	188	EPg		2254	56.15	0.3							1.0
HWQ	SZ	63	52	EPg		2254	58.38	0.3	45						1.0
HWQ	SE	63	52	ESg		2255	5.67	0.0							1.0

January 7 2006 Hour: 0:25 47.8 Lat: 33.00N Lon: 34.95E Depth: 14 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MATL	SZ	65	33	EPg		025	58.03	-0.3							1.0
BHL	SZ	120	33	EPg		026	6.38	-0.1	51						1.0
BHL	SN	120	33	ESg		026	20.55	0.3							1.0
HWQ	SZ	170	33	EPg		026	14.10	0.4							1.0
HWQ	SE	170	33	ESg		026	32.66	-0.3							1.0

January 7 2006 Hour: 2:35 34.8 Aleutian M=5.6 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		236	26.08								

January 7 2006 Hour: 12:11 0.2 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPg		1211	20.72								
BHL	SZ			EPg		1211	22.67								
HWQ	SN			ESg		1211	34.73								
BHL	SN			ESg		1211	38.04								

January 8 2006 Hour: 11:34 57.0 Lat: 35.47N Lon: 23.97E Depth: 0 Agency: REL Regional
Magnitudes: 6.4MC REL Rms: 1.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
PPCY	SZ	766	92	EPn		1136	38.5	0.3							1.0
ALFC	SZ	786	90	EPn		1136	40.8	0.1							1.0
SZAC	SZ	816	93	EPn		1136	44.7	0.2							1.0
MAMC	SZ	842	90	EPn		1136	48.2	0.6							1.0
CSS	SZ	854	91	EPn		1136	48.9	-0.3							1.0
PHNC	SZ	917	90	EPn		1136	58.5	1.5							1.0
MATL	SZ	1066	99	EPn		1137	15.36	-0.1							1.0
BHL	BZ	1084	96	EPn		1137	15.06	-2.8	2008						1.0
BHL	BE	1084	96	Sn		1138	58.71	-3.3							1.0
HWQ	SZ	1103	93	EPn		1137	19.16	-1.0							1.0

HWQ SN 1103 93 Sn 1139 9.52 3.5 1.0

January 10 2006 Hour: 1:15 52.0 North Atlantic M=5.4 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 117 12.80

January 13 2006 Hour: 23:33 0.5 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPg 2333 38.35
 HWQ SN ESg 2333 47.67
 BHL SZ EPg 2333 45.56
 BHL SN ESg 2334 0.72

January 14 2006 Hour: 9: 2 1.4 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPg 9 2 52.22
 HWQ SE ESg 9 2 58.97
 BHL SZ EPg 9 2 48.47
 BHL SN ESg 9 2 55.79

January 15 2006 Hour: 12: 8 7.4 Flores sea M=6.1 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1211 7.89

January 15 2006 Hour: 16:46 5.9 Turkey M=4.1 Agency: REL Regional
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EPn 1647 34.39
 HWQ SZ EPn 1647 27.44

January 16 2006 Hour: 9:21 0.6 Iran-Iraq border M=4.6 Agency: REL Regional
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPn 921 18.23

January 16 2006 Hour: 11: 0 0.7 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPg 11 0 40.39
 BHL SZ EPg 11 0 40.59
 HWQ SE ESg 11 0 53.82
 BHL SN ESg 11 0 54.85

January 16 2006 Hour: 11:46 53.7 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPg 1147 8.56
 BHL BZ EPg 1147 16.95
 HWQ SE ESg 1147 15.37

January 17 2006 Hour: 20:48 38.2 Lat: 33.11N Lon: 35.88E Depth: 18 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.5 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 MATL SZ 67 309 EPg 2048 48.54 -0.4 41 1.0
 BHL SZ 91 346 EPg 2048 53.59 1.0 1.0
 BHL SN 91 346 ESg 2049 3.37 0.1 1.0
 HWQ SZ 130 2 EPg 2048 57.92 -0.4 1.0
 HWQ SN 130 2 ESg 2049 12.90 -0.3 1.0

January 18 2006 Hour: 2:58 0.7 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPg 258 17.97
 HWQ SN ESg 258 30.74
 BHL SZ EPg 258 26.12
 BHL SN ESg 258 44.78

January 19 2006 Hour: 11:9 1.5

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	SZ			EPg		11	9	42.26							
HWQ	SZ			EPg		11	9	47.53							
BHL	SN			ESg		11	9	58.67							
HWQ	SN			ESg		1110		0.62							

January 20 2006 Hour: 10:41 0.5 Dodecanese M=4.3

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPn		1042		3.07							
BHL	SZ			EPn		1042		1.38							

January 22 2006 Hour: 1:13 1.3

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPn		113		43.46							
BHL	SZ			EPn		113		44.83							

January 22 2006 Hour: 10:9 55.1 Lat: 33.40N Lon: 35.17E Depth: 9 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.8 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MATL	SZ	18	55	EPg		10	9	59.52							1.0
BHL	SZ	72	38	EPg		1010		5.72							1.0
BHL	SN	72	38	ESg		1010		14.74							1.0
HWQ	SZ	121	36	EPg		1010		15.43		57					1.0
HWQ	SN	121	36	ESg		1010		29.07							1.0

January 22 2006 Hour: 14:26 1.3 Turkey M=4.0

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPn		1427		4.39							
BHL	BZ			EPn		1427		6.96							

January 25 2006 Hour: 10:45 1.3

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	SZ			EPg		1045		37.43							
BHL	SE			ESg		1045		45.77							
HWQ	SZ			EPg		1045		46.57							
HWQ	SN			ESg		1046		3.16							

January 25 2006 Hour: 15:26 0.5

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	SZ			EPg		1527		2.49							
BHL	SN			ESg		1527		10.94							
HWQ	SZ			EPg		1527		14.08							
HWQ	SN			ESg		1527		26.58							

January 26 2006 Hour: 18:42 2.1

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EPn		1842		49.14							
HWQ	SZ			EPn		1842		43.61							

January 27 2006 Hour: 17:9 29.4 Banda sea M=7.6

Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1711		33.44							

January 29 2006 Hour: 8:45 35.2 Fiji M=5.1

Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		846		9.66							

January 29 2006 Hour: 12:23 39.2 Fiji M=5.2 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 12 3 16.21

January 29 2006 Hour: 14:34 0.2 Fiji M=5.4 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1434 17.97

January 29 2006 Hour: 23:46 36.7 Lat: 32.17N Lon: 30.71E Depth: 62 Agency: REL Regional
Magnitudes: 4.0MC REL Rms: 0.6 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ 500 66 EP 2347 40.66 -0.3 1.0
 BHL BN 500 66 ES 2348 29.79 1.2 1.0
 HWQ SZ 541 63 EP 2347 46.20 0.4 132 1.0
 HWQ SN 541 63 ES 2348 35.68 -1.3 1.0

January 30 2006 Hour: 11:21 0.3 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPg 1122 5.96
 BHL SZ EPg 1122 6.39
 HWQ SN ESg 1122 20.44
 BHL SN ESg 1122 21.40

January 31 2006 Hour: 11:31 0.2 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL SZ EPg 1131 11.33
 BHL SN ESg 1131 22.22
 HWQ SZ EPg 1131 12.94
 HWQ SN ESg 1131 24.84

January 31 2006 Hour: 19:23 44.7 Sumatra M=5.7 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1926 25.09

Epicentral Map of Lebanon

JANUARY 2006

