

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

October

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Prepared by
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GENERAL BULLETIN INFORMATION

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

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

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

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

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

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

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

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

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

All available coda values are used for magnitude calculations. No station corrections are used for either travel times or magnitudes calculations. The 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 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	3414.13N	3624.11E	1170	FAKEHEH	Opened Dec 2004
RCY	3329.08N	3549.13E	1360	RACHAYA	Opened Jun 2006
DWR	3323.13N	3524.08E	420	DWEIR	Scheduled 2003
BEYL	3352.30N	3529.59E	49	BEIRUT	Opened Jul 2006

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: GRL 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.

October 1 2006 Hour: 9:11 9.2 Kuril Islands Mw=6.6 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 918 21.97
 BEYL BZ EP 918 22.68
 RCY SZ EP 918 24.36

October 1 2006 Hour: 12: 0 21.6 Turkey MD=3.6 Agency: REL Regional
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 FKH SZ EPn 12 3 32.65
 HWQ SZ EPn 12 3 37.55
 BHL BZ EPn 12 3 37.91

October 1 2006 Hour: 21:42 45.1 Lat: 33.42N Lon: 35.51E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.3 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ 29 77 EPg 2142 50.38 0.49 38 1.0
 RCY SN 29 77 ESg 2142 53.42 0.01 1.0
 BEYL BZ 50 358 EPg 2142 53.58 0.43 1.0
 BEYL BN 50 358 ESg 2142 58.98-0.10 1.0
 BHL BZ 55 14 EPg 2142 53.74-0.26 1.0
 BHL BN 55 14 ESg 2143 0.19-0.36 1.0

October 2 2006 Hour: 2:22 17.8 Tonga M=4.9 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 222 28.21

October 2 2006 Hour: 2:36 1.4 Agency: REL Regional
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ EPn 236 52.29
 BHL BZ EPn 236 50.11

October 2 2006 Hour: 11:10 51.6 Lat: 33.63N Lon: 36.39E Depth: 12 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.9 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ 55 254 EPg 1110 59.96-0.88 47 1.0
 RCY SE 55 254 ESg 1111 7.68 0.04 1.0
 BHL BZ 75 294 EPg 1111 3.67-0.22 1.0
 BHL BE 75 294 ESg 1111 11.88-1.08 1.0
 HWQ SZ 83 331 EPg 1111 5.78 0.58 1.0
 HWQ SN 83 331 ESg 1111 16.04 0.79 1.0

October 2 2006 Hour: 11:41 15.6 Lat: 33.56N Lon: 36.49E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.2 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ 63 262 EPg 1141 25.33-0.34 49 1.0
 RCY SE 63 262 ESg 1141 33.05-0.09 1.0
 BHL BZ 86 297 EPg 1141 29.54 0.09 1.0
 BHL BE 86 297 ESg 1141 39.97 0.25 1.0
 HWQ SZ 94 328 EPg 1141 30.88 0.15 1.0
 HWQ SE 94 328 ESg 1141 41.71-0.24 1.0

October 3 2006 Hour: 8:24 32.5 Lat: 32.60N Lon: 34.94E Depth: 0 Agency: REL Regional
Magnitudes: 2.9MC REL Rms: 1.3 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 MATL SZ 105 20 EP 824 50.67 1.26 1.0
 RCY SZ 128 40 EP 824 51.52-1.58 48 1.0
 RCY SN 128 40 ES 825 8.84 0.46 1.0
 BHL SZ 159 25 EP 824 56.51-1.29 1.0
 BHL SE 159 25 ES 825 14.91-1.64 1.0
 HWQ SZ 208 26 EP 825 6.38 1.89 1.0
 HWQ SE 208 26 ES 825 29.13 0.94 1.0

October 3 2006 Hour: 11:11 37.6 Lat: 33.65N Lon: 36.55E Depth: 0 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
RCY	SZ	71	255	EPg		1111	48.75	-0.24	44						1.0
RCY	SE	71	255	ESg		1111	56.45	-0.97							1.0
BHL	BZ	88	289	EPg		1111	52.28	0.48							1.0
BHL	BE	88	289	ESg		1112	2.94	0.64							1.0
HWQ	SZ	90	321	EPg		1111	51.58	-0.47							1.0
HWQ	SE	90	321	ESg		1112	2.62	-0.12							1.0

October 3 2006 Hour: 18:21 44.8 Vanuatu Mw=6.3 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1822	16.50								
FKH	SZ			EP		1822	16.61								
BEYL	BZ			EP		1822	17.26								

October 4 2006 Hour: 1: 2 59.7 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EPg		1 4	6.17								
BHL	BE			ESg		1 4	15.64								
RCY	SN			ESg		1 4	8.72								
BHL	BZ			EPg		1 4	9.68								

October 4 2006 Hour: 10:39 0.7 Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EPg		1039	31.64								
HWQ	SE			ESg		1039	48.76								
FKH	SN			ESg		1039	39.88								
HWQ	SZ			EPg		1039	38.91								

October 4 2006 Hour: 12:50 41.8 Lat: 34.76N Lon: 36.75E Depth: 14 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	91	234	EPg		1250	56.38	0.19							1.0
HWQ	SN	91	234	ESg		1251	6.69	-0.18							1.0
BHL	BZ	139	227	EPg		1251	3.11	-0.05	47						1.0
BHL	BN	139	227	ESg		1251	19.12	0.13							1.0

October 4 2006 Hour: 13:55 33.1 Lat: 33.78N Lon: 35.71E Depth: 10 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 1.0 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	341	IPg		1355	35.28	-0.90	38						1.0
BHL	BE	15	341	ISg		1355	38.35	-0.08							1.0
BEYL	BZ	22	298	EPg		1355	36.38	-0.76							1.0
BEYL	BN	22	298	ESg		1355	40.50	0.40							1.0
RCY	SZ	34	162	IPg		1355	37.84	-1.14							1.0
RCY	SN	34	162	ISg		1355	42.82	-0.48							1.0
HWQ	SZ	60	22	IPg		1355	41.73	-1.22							1.0
HWQ	SN	60	22	ISg		1355	51.97	1.75							1.0

October 4 2006 Hour: 15:11 17.3 Lat: 33.59N Lon: 35.99E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.9 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	19	233	IPg		1511	19.46	-1.00							1.0
RCY	SN	19	233	ISg		1511	22.74	-0.03							1.0
BHL	BZ	46	319	EPg		1511	23.30	-1.53	43						1.0
BHL	BN	46	319	ESg		1511	30.33	-0.04							1.0
BEYL	BZ	55	305	EPg		1511	25.97	-0.28							1.0
BEYL	BN	55	305	ESg		1511	33.73	0.88							1.0
HWQ	SZ	76	357	EPg		1511	29.64	-0.03							1.0
HWQ	SE	76	357	ESg		1511	39.41	0.61							1.0

October 4 2006 Hour: 16:43 35.0 Lat: 36.09N Lon: 35.77E Depth: 0 Agency: REL Regional
Magnitudes: 3.7MC REL Rms: 1.7 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	201	175	EP		1644	4.64	-1.53							1.0
HWQ	SE	201	175	ES		1644	26.99	-2.22							1.0
FKH	SZ	213	164	EP		1644	6.73	-0.93							1.0
FKH	SN	213	164	ES		1644	31.60	-0.21							1.0
BHL	BZ	242	183	EP		1644	9.61	-1.64	117						1.0
BHL	BE	242	183	ES		1644	38.34	0.29							1.0
BEYL	BZ	247	186	EP		1644	11.73	-0.01							1.0
BEYL	BE	247	186	ES		1644	40.38	1.49							1.0
RCY	SN	289	179	ES		1644	53.08	4.95							1.0

October 5 2006 Hour: 6:14 31.1 Lat: 35.41N Lon: 37.60E Depth: 0 Agency: REL Regional
Magnitudes: 3.2MC REL Rms: 1.8 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	170	220	EP		614	56.96	-1.12	65						1.0
FKH	SE	170	220	ES		615	16.23	-1.81							1.0
HWQ	SZ	197	231	EP		615	1.72	0.06							1.0
HWQ	SN	197	231	ES		615	22.67	-1.61							1.0
BHL	BN	244	227	ES		615	37.66	3.07							1.0

October 5 2006 Hour: 12:33 35.9 Lat: 33.59N Lon: 36.48E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.9 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	62	260	EPg		1233	44.75	-1.23	48						1.0
RCY	SE	62	260	ESg		1233	52.88	-0.55							1.0
BHL	BZ	84	295	EPg		1233	49.11	-0.38							1.0
BHL	BE	84	295	ESg		1233	58.96	-0.59							1.0
HWQ	SZ	91	327	EPg		1233	51.20	0.58							1.0
HWQ	SE	91	327	ESg		1234	2.24	0.74							1.0

October 5 2006 Hour: 15:4 17.2 Lat: 34.55N Lon: 36.10E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.8 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	33	205	EPg		15 4	21.34	-1.21	49						1.0
HWQ	SN	33	205	ESg		15 4	25.18	-1.34							1.0
FKH	SZ	45	141	EPg		15 4	24.24	-0.19							1.0
FKH	SN	45	141	ESg		15 4	29.87	0.09							1.0
BHL	BZ	83	210	EPg		15 4	31.58	1.09							1.0
BHL	BN	83	210	ESg		15 4	40.97	0.64							1.0

October 6 2006 Hour: 7:22 56.9 Owen mb=5.0 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		724	0.65								

October 7 2006 Hour: 10:5 31.2 Lat: 33.77N Lon: 35.76E Depth: 10 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.9 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	327	IPg		10 5	33.26	-1.28	60						1.0
BHL	BN	18	327	ISg		10 5	36.67	-0.36							1.0
BEYL	BZ	27	294	IPg		10 5	35.26	-0.58							1.0
BEYL	BN	27	294	ISg		10 5	40.44	1.16							1.0
RCY	SZ	32	170	IPg		10 5	35.84	-0.87							1.0
RCY	SE	32	170	ISg		10 5	41.12	0.33							1.0
HWQ	SZ	59	17	IPg		10 5	39.87	-0.96							1.0
HWQ	SE	59	17	ISg		10 5	49.71	1.73							1.0

October 7 2006 Hour: 10:43 20.5 Lat: 34.85N Lon: 34.78E Depth: 0 Agency: REL Regional
Magnitudes: 3.1MC REL Rms: 0.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	125	120	EP		1043	40.05	-0.55	57						1.0
HWQ	SE	125	120	ES		1043	55.81	0.35							1.0
BEYL	BZ	127	148	EP		1043	40.79	-0.16							1.0
BHL	BZ	132	142	EP		1043	41.91	0.09							1.0
BHL	BE	132	142	ES		1043	57.60	0.01							1.0
RCY	SZ	179	147	EP		1043	48.81	0.02							1.0
RCY	SN	179	147	ES		1044	9.53	-0.19							1.0

October 7 2006 Hour: 11:18 8.4 Lat: 33.59N Lon: 36.62E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.6 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	75	262	EPg		1118	20.27	-0.30	54						1.0
RCY	SE	75	262	ESg		1118	28.57	-0.98							1.0
BHL	BZ	96	292	EPg		1118	23.91	-0.04							1.0
BHL	BN	96	292	ESg		1118	35.33	-0.09							1.0
HWQ	SZ	99	321	EPg		1118	23.85	-0.53							1.0
HWQ	SE	99	321	ESg		1118	36.92	0.75							1.0

October 8 2006 Hour: 12:1 3.5 Lat: 33.63N Lon: 36.60E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.6 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	74	258	EPg		12 1	14.82	-0.70	49						1.0
RCY	SN	74	258	ESg		12 1	23.80	-0.60							1.0
BHL	BZ	93	290	EPg		12 1	18.55	0.03							1.0
BHL	BE	93	290	ESg		12 1	29.19	-0.43							1.0
HWQ	SZ	94	320	EPg		12 1	18.34	-0.38							1.0
HWQ	SN	94	320	ESg		12 1	30.78	0.81							1.0

October 8 2006 Hour: 13:8 32.1 Lat: 34.51N Lon: 36.86E Depth: 0 Agency: REL Local
Magnitudes: 3.3MC REL Rms: 0.5 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	88	253	EPg		13 8	46.85	0.64							1.0
HWQ	SN	88	253	ESg		13 8	56.45	-0.20							1.0
BHL	BZ	129	239	EPg		13 8	52.85	-0.13	75						1.0
BHL	BN	129	239	ESg		13 9	8.34	-0.10							1.0
RCY	SZ	149	220	EPg		13 8	55.85	-0.22							1.0
RCY	SE	149	220	ESg		13 9	13.20	-0.61							1.0

October 8 2006 Hour: 13:21 58.5 Lat: 34.99N Lon: 36.53E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 1.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	96	214	EP		1322	11.87	-2.11							1.0
HWQ	SE	96	214	ES		1322	25.68	0.26							1.0
BHL	BZ	145	214	EP		1322	23.72	1.91	51						1.0
BHL	BN	145	214	ES		1322	39.01	-0.03							1.0

October 8 2006 Hour: 14:9 59.6 Tonga Mw=5.8 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1410	12.07								
BEYL	BZ			EP		1410	12.94								

October 8 2006 Hour: 14:29 60.0 Tonga mb=5.4 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1430	10.30								
BEYL	BZ			EP		1430	10.51								

October 8 2006 Hour: 19:14 0.7 Tonga mb=5.4 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1914 49.80
 BEYL BZ EP 1914 48.07

October 9 2006 Hour: 5:13 35.1 Lat: 35.81N Lon: 35.43E Depth: 0 Agency: REL Regional
Magnitudes: 4.0MC REL Rms: 1.0 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ SZ 176 164 EP 5 2 1.80-1.10 1.0
 HWQ SN 176 164 ES 5 2 21.27-2.24 1.0
 FKH SZ 196 153 EP 5 2 5.98 0.47 1.0
 FKH SE 196 153 ES 5 2 30.43 2.38 1.0
 BHL BZ 212 174 EP 5 2 6.64-0.92 182 1.0
 BHL BN 212 174 ES 5 2 32.80 1.19 1.0
 BEYL BZ 215 179 EP 5 2 7.78-0.02 1.0
 BEYL BN 215 179 ES 5 2 32.38 0.35 1.0
 MATL SZ 258 182 EP 5 2 12.73-0.36 1.0
 RCY SZ 260 172 EP 5 2 12.69-0.87 1.0
 RCY SN 260 172 ES 5 2 42.46 0.41 1.0

October 9 2006 Hour: 7:47 55.6 Central Iran ML=4.7 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 748 7.22

October 9 2006 Hour: 10:8 11.2 Philippines Mw=6.3 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 FKH SZ EP 1013 21.16
 BHL BZ EP 1013 24.84
 BEYL BZ EP 1013 26.01

October 9 2006 Hour: 11:19 57.6 Philippines mb=5.8 Agency: REL Distant
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 1120 6.97

October 9 2006 Hour: 18:22 12.5 Lat: 33.07N Lon: 35.58E Depth: 14 Agency: REL Local
Magnitudes: 3.3MC REL Rms: 0.4 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ 51 26 IPg 1822 20.91-0.20 94 1.0
 RCY SN 51 26 ISg 1822 27.36-0.10 1.0
 MATL SZ 52 333 IPg 1822 21.72 0.52 1.0
 BEYL BZ 89 355 IPg 1822 27.50 0.41 1.0
 BEYL BE 89 355 ISg 1822 37.70-0.17 1.0
 BHL BZ 93 4 IPg 1822 27.29-0.37 1.0
 BHL BN 93 4 ISg 1822 38.59-0.28 1.0
 HWQ SZ 138 14 IPg 1822 34.36-0.57 1.0
 HWQ SE 138 14 ISg 1822 51.64 0.13 1.0
 FKH SZ 150 30 IPg 1822 36.51-0.32 1.0
 FKH SN 150 30 ISg 1822 55.42 0.61 1.0

October 10 2006 Hour: 9:0 1.8 Agency: REL Local
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ IPg 9 1 5.19
 BHL BZ EPg 9 1 6.92
 BHL BE ESg 9 1 13.21
 RCY SE ISg 9 1 9.78

October 10 2006 Hour: 10:17 58.4 Lat: 33.71N Lon: 36.55E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.5 secs
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ 72 250 EPg 1018 9.89-0.20 37 1.0
 RCY SE 72 250 ESg 1018 17.85-0.88 1.0
 BHL BZ 86 285 EPg 1018 12.34 0.11 1.0
 BHL BE 86 285 ESg 1018 22.72 0.27 1.0

October 10 2006 Hour: 11:23 17.0 Lat: 34.40N Lon: 36.85E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 1.1 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	45	246	EPg		1123	22.78	-1.41	43						1.0
FKH	SN	45	246	ESg		1123	28.37	-1.14							1.0
HWQ	SZ	84	261	EPg		1123	31.01	0.50							1.0
BHL	BZ	123	244	EPg		1123	37.67	0.88							1.0
BHL	BE	123	244	ESg		1123	52.60	1.17							1.0

October 10 2006 Hour: 14:37 15.2 Lat: 34.73N Lon: 36.65E Depth: 33 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.8 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	81	232	EPg		1437	30.02	1.41							1.0
HWQ	SN	81	232	ESg		1437	37.98	-0.59							1.0
BHL	BZ	129	225	EPg		1437	35.50	0.10	46						1.0
BHL	BN	129	225	ESg		1437	50.02	-0.37							1.0
RCY	SZ	158	209	EPg		1437	38.06	-1.49							1.0
RCY	SN	158	209	ESg		1437	58.21	0.60							1.0

October 11 2006 Hour: 0:9 34.9 Honshu Mw=5.9 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		010	24.12								
BEYL	BZ			EP		010	25.19								

October 11 2006 Hour: 6:55 12.3 Philippines mb=5.8 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		655	33.33								
BEYL	BZ			EP		655	34.96								

October 11 2006 Hour: 17:55 19.7 Lat: 34.03N Lon: 35.47E Depth: 18 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.8 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ	18	174	EPg		1755	23.09	-0.67							1.0
BHL	BZ	22	131	EPg		1755	23.72	-0.61	37						1.0
BHL	BN	22	131	ESg		1755	28.66	0.89							1.0
HWQ	SZ	51	58	EPg		1755	28.09	-0.21							1.0
RCY	SZ	69	152	EPg		1755	31.72	0.84							1.0
RCY	SE	69	152	ESg		1755	38.06	-1.11							1.0

October 12 2006 Hour: 5:40 35.2 Sumatra mb=5.5 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		540	54.72								
BEYL	BZ			EP		540	55.48								

October 12 2006 Hour: 9:15 47.0 Lat: 33.30N Lon: 35.24E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.6 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
MATL	SZ	22	21	EPg		915	50.52	-0.04							1.0
RCY	SZ	57	69	EPg		915	55.37	-0.82	40						1.0
RCY	SE	57	69	ESg		916	2.50	-0.53							1.0
BHL	BZ	77	30	EPg		915	58.56	-0.82							1.0
BHL	BN	77	30	ESg		916	9.33	0.75							1.0
HWQ	SZ	126	31	EPg		916	7.83	0.48							1.0
HWQ	SE	126	31	ESg		916	22.54	0.10							1.0

October 12 2006 Hour: 10:13 8.6 Lat: 33.79N Lon: 36.14E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 1.0 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	45	221	EPg		1013	15.02	-0.86	38						1.0
RCY	SE	45	221	ESg		1013	20.38	-0.88							1.0
BHL	BZ	47	286	EPg		1013	15.11	-1.03							1.0
BHL	BE	47	286	ESg		1013	22.48	0.77							1.0

October 12 2006 Hour: 11:28 50.5 Lat: 34.60N Lon: 36.94E Depth: 33 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
HWQ	SZ	98	249	EPg		1129	6.76	0.47	42						1.0
HWQ	SE	98	249	ESg		1129	18.10	0.13							1.0
BHL	SE	141	237	ESg		1129	27.97	-0.78							1.0

October 12 2006 Hour: 11:54 5.2 Lat: 34.54N Lon: 36.82E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.7 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	51	229	EPg		1154	12.50	-0.97	41						1.0
FKH	SN	51	229	ESg		1154	18.06	-1.50							1.0
HWQ	SZ	85	250	EPg		1154	19.71	0.71							1.0
HWQ	SE	85	250	ESg		1154	29.49	0.32							1.0
BHL	BZ	128	237	EPg		1154	26.17	0.23							1.0
BHL	BN	128	237	ESg		1154	41.10	-0.16							1.0
RCY	SZ	149	219	EPg		1154	29.07	-0.20							1.0
RCY	SN	149	219	ESg		1154	48.31	1.26							1.0

October 12 2006 Hour: 13: 8 8.2 Lat: 33.78N Lon: 35.69E Depth: 12 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.8 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	347	IPg		13 8	10.79	-0.57	43						1.0
BHL	BE	15	347	ISg		13 8	13.92	0.20							1.0
RCY	SZ	35	160	EPg		13 8	13.06	-1.12							1.0
RCY	SN	35	160	ESg		13 8	18.63	0.01							1.0
HWQ	SZ	60	23	EPg		13 8	17.21	-0.96							1.0
HWQ	SE	60	23	ESg		13 8	26.71	1.15							1.0

October 12 2006 Hour: 13:32 16.3 Crete mb=4.6 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EPn		1332	50.43								
RCY	SZ			EPn		1332	52.53								
HWQ	SZ			EPn		1332	53.01								

October 12 2006 Hour: 14:48 44.1 Taiwan Region Mw=5.7 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1458	2.92								
BHL	BZ			EP		1458	6.44								
BEYL	BZ			EP		1458	7.16								

October 12 2006 Hour: 17: 6 7.9 Turkmenistan mb=5.4 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EP		1712	2.39								
RCY	SZ			EP		1712	7.88								
BHL	BZ			EP		1712	7.08								
BEYL	BZ			EP		1712	9.53								

October 12 2006 Hour: 18:25 27.8 Chile Mw=6.4 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1826	9.16								

October 12 2006 Hour: 21:19 24.7 Caucasus Region mb=5.0 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		2119	53.14								
BHL	BZ			EP		2119	49.39								

October 13 2006 Hour: 13:57 46.0 Kuril Islands Mw=5.8 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		14	0	1.95							
BEYL	BZ			EP		14	0	3.36							

October 14 2006 Hour: 11:11 50.0 Lat: 33.57N Lon: 36.49E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	63	261	EPg		1111	59.86	-0.30	42						1.0
RCY	SE	63	261	ESg		1112	7.83	0.17							1.0
BHL	BZ	86	296	EPg		1112	3.70	-0.13							1.0
BHL	BN	86	296	ESg		1112	14.19	0.14							1.0
HWQ	SZ	93	328	EPg		1112	5.55	0.52							1.0
HWQ	SE	93	328	ESg		1112	15.79	-0.35							1.0

October 15 2006 Hour: 1:35 10.4 Lat: 34.96N Lon: 34.03E Depth: 29 Agency: REL Regional
Magnitudes: 4.3MC REL Rms: 0.7 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ	181	131	EP		135	35.38	-0.85							1.0
BEYL	BE	181	131	ES		135	54.57	-0.78							1.0
BHL	BZ	190	128	EP		135	36.21	-1.23							1.0
BHL	BE	190	128	ES		135	56.47	-1.00							1.0
HWQ	SZ	192	113	EP		135	37.91	0.25	316						1.0
HWQ	SN	192	113	ES		135	59.10	1.26							1.0
MATL	SZ	203	143	EP		135	38.57	-0.34							1.0
RCY	SZ	232	134	EP		135	42.97	0.21							1.0
RCY	SE	232	134	ES		136	6.91	0.19							1.0

October 15 2006 Hour: 6:23 25.2 Lat: 35.33N Lon: 37.86E Depth: 0 Agency: REL Regional
Magnitudes: 3.6MC REL Rms: 1.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	210	237	EP		623	56.10	-1.39							1.0
HWQ	SE	210	237	ES		624	20.24	-1.11							1.0
BHL	BZ	256	233	EP		624	2.26	-0.97	106						1.0
BHL	BN	256	233	ES		624	32.37	1.04							1.0

October 15 2006 Hour: 17:26 58.2 Kuril Islands Mw=6.7 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1728	43.81								
BEYL	BZ			EP		1728	50.25								

October 16 2006 Hour: 11:15 28.6 Lat: 33.71N Lon: 36.94E Depth: 0 Agency: REL Local
Magnitudes: 3.4MC REL Rms: 1.0 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	107	257	EP		1115	45.11	-0.85	100						1.0
RCY	SN	107	257	ES		1115	58.01	-0.77							1.0
HWQ	SZ	112	305	EP		1115	47.32	0.60							1.0
HWQ	SN	112	305	ES		1116	0.90	0.81							1.0
BHL	BZ	122	281	EP		1115	47.55	-0.70							1.0
BHL	BN	122	281	ES		1116	1.91	-0.85							1.0

October 16 2006 Hour: 11:20 57.3 Lat: 33.56N Lon: 36.53E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.7 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	66	263	EPg		1121	7.64	-0.37	35						1.0
RCY	SE	66	263	ESg		1121	15.05	-0.88							1.0
BHL	SE	89	295	ESg		1121	22.09	-0.26							1.0
HWQ	SE	96	326	ESg		1121	24.73	0.57							1.0

October 16 2006 Hour: 11:39 38.2 Lat: 33.45N Lon: 36.66E Depth: 15 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
RCY	SZ	78	273	EPg		1139	51.69	0.92	45						1.0
RCY	SE	78	273	ESg		1139	59.63	-0.42							1.0
BHL	BZ	106	298	EPg		1139	54.68	-0.11							1.0
BHL	BN	106	298	ESg		1140	7.03	-0.02							1.0
HWQ	SZ	113	324	EPg		1139	55.85	0.03							1.0
HWQ	SE	113	324	ESg		1140	8.85	0.01							1.0

October 17 2006 Hour: 1:41 52.1 New Britain Region Mw=6.8 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		143	49.08								

October 17 2006 Hour: 10: 5 10.8 Lat: 34.52N Lon: 36.59E Depth: 14 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	65	245	EPg		10 5	21.51	0.16	43						1.0
HWQ	SN	65	245	ESg		10 5	29.05	-0.11							1.0
BHL	BZ	110	232	EPg		10 5	27.91	-0.07							1.0
BHL	BN	110	232	ESg		10 5	40.77	0.08							1.0

October 18 2006 Hour: 23:48 42.8 Lat: 34.48N Lon: 33.37E Depth: 33 Agency: REL Regional
Magnitudes: 3.6MC REL Rms: 0.6 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ	207	108	EP		2349	11.17	-0.46							1.0
BEYL	BN	207	108	ES		2349	31.67	-1.28							1.0
BHL	BZ	220	106	EP		2349	13.26	-0.07	106						1.0
BHL	BE	220	106	ES		2349	34.36	-1.56							1.0
HWQ	SZ	238	95	EP		2349	16.30	0.72							1.0
HWQ	SE	238	95	ES		2349	40.30	0.47							1.0
RCY	SZ	252	115	EP		2349	17.44	0.12							1.0
RCY	SE	252	115	ES		2349	43.35	0.49							1.0

October 19 2006 Hour: 11:13 28.8 Lat: 33.55N Lon: 36.54E Depth: 56 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 1.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	67	264	EPg		1113	40.99	-0.22	44						1.0
RCY	SE	67	264	ESg		1113	49.11	-1.30							1.0
FKH	SZ	77	351	EPg		1113	42.10	-0.15							1.0
FKH	SE	77	351	ESg		1113	53.16	0.93							1.0
BHL	BZ	91	296	EPg		1113	44.13	0.38							1.0
BHL	BE	91	296	ESg		1113	55.34	0.49							1.0
HWQ	SZ	98	326	EPg		1113	41.67	-2.87							1.0
HWQ	SN	98	326	ESg		1113	56.99	0.77							1.0

October 19 2006 Hour: 12: 9 37.9 Lat: 33.64N Lon: 36.56E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.6 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	71	256	EPg		12 9	48.98	-0.41	34						1.0
RCY	SN	71	256	ESg		12 9	56.82	-1.07							1.0
BHL	BZ	89	289	EPg		12 9	52.63	0.37							1.0
BHL	BN	89	289	ESg		1210	3.21	0.33							1.0
HWQ	SZ	91	321	EPg		12 9	52.43	-0.09							1.0

October 19 2006 Hour: 13: 1 1.9 Lat: 33.83N Lon: 36.65E Depth: 15 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.9 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	51	333	EPg		13 1	9.49	-0.82	40						1.0
FKH	SN	51	333	ESg		13 1	15.70	-0.86							1.0
HWQ	SZ	82	308	EPg		13 1	15.80	0.88							1.0
HWQ	SN	82	308	ESg		13 1	25.12	0.54							1.0
BHL	SZ	93	275	EPg		13 1	17.25	0.77							1.0

October 19 2006 Hour: 21: 1 59.0 Eastern Turkey Mw=4.4 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPn		21	2	30.05							
BHL	BZ			EPn		21	2	35.91							

October 20 2006 Hour: 11: 5 31.3 Peru Mw= 6.5 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		11	8	38.97							
BEYL	BZ			EP		11	8	37.42							

October 20 2006 Hour: 18:12 23.3 Western Turkey Mw=4.7 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPn		1817	32.27								
BHL	BZ			EPn		1817	35.56								
RCY	SZ			EPn		1817	39.51								

October 20 2006 Hour: 18:59 38.0 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EPn		19	0	6.64							
RCY	SZ			EPn		19	0	7.45							
HWQ	SZ			EPn		19	0	11.71							

October 21 2006 Hour: 8:36 14.4 Lat: 33.29N Lon: 35.43E Depth: 34 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.7 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	42	60	EPg		836	21.50	-1.32	48						1.0
RCY	SE	42	60	ESg		836	29.06	0.02							1.0
BHL	BZ	71	17	EPg		836	26.47	0.00							1.0
BHL	BE	71	17	ESg		836	35.02	-0.37							1.0
HWQ	SZ	119	24	EPg		836	34.38	1.10							1.0
HWQ	SN	119	24	ESg		836	47.47	0.23							1.0

October 21 2006 Hour: 11:40 11.4 Lat: 32.83N Lon: 34.97E Depth: 27 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	108	47	EP		1140	28.48	0.07	33						1.0
RCY	SE	108	47	ES		1140	41.10	0.09							1.0
BHL	BZ	135	28	EP		1140	31.96	0.15							1.0
BHL	BN	135	28	ES		1140	46.94	0.02							1.0
HWQ	SZ	185	29	EP		1140	37.86	-0.09							1.0
HWQ	SE	185	29	ES		1140	57.50	-0.12							1.0

October 21 2006 Hour: 11:58 24.6 Lat: 35.32N Lon: 36.25E Depth: 15 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
HWQ	SZ	119	193	EPg		1158	42.95	-0.12	54						1.0
HWQ	SN	119	193	ESg		1158	56.59	-0.18							1.0
BHL	BZ	166	199	EPg		1158	49.88	-0.14							1.0
BHL	BN	166	199	ESg		1159	8.96	0.09							1.0

October 21 2006 Hour: 12:12 0.5 Lat: 35.24N Lon: 36.80E Depth: 14 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
HWQ	SZ	132	216	EPg		1212	20.92	-0.05	46						1.0
HWQ	SE	132	216	ESg		1212	35.32	-0.79							1.0
BHL	SE	182	216	ESg		1212	49.62	0.88							1.0

October 21 2006 Hour: 12:36 27.2 Lat: 33.84N Lon: 36.86E Depth: 15 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
HWQ	SZ	97	300	EPg		1236	43.41	0.90							1.0
HWQ	SN	97	300	ESg		1236	53.95	0.11							1.0
RCY	SZ	104	248	EPg		1236	42.92	-0.62	54						1.0
RCY	SN	104	248	ESg		1236	55.94	0.32							1.0
BHL	BZ	112	274	EPg		1236	43.83	-0.79							1.0
BHL	BN	112	274	ESg		1236	57.04	-0.47							1.0

October 21 2006 Hour: 18:34 3.4 Philippines Mw=5.9 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1835	27.36								
BEYL	BZ			EP		1835	28.24								

October 22 2006 Hour: 6:13 31.3 Cyprus Region ML=3.4 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EPn		617	42.20								
HWQ	SZ			EPn		617	43.59								
BHL	BZ			EPn		617	45.13								

October 22 2006 Hour: 9:17 5.0 Indian ridge Mw=6.0 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		920	13.77								

October 22 2006 Hour: 12:18 59.0 Turkey-Syria Border MD=3.5 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ			EPn		1219	49.00								
BHL	BZ			EPn		1219	56.98								

October 22 2006 Hour: 12:41 22.1 Lat: 34.65N Lon: 36.78E Depth: 15 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 1.9 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	57	218	EPg		1241	29.49	-2.01	47						1.0
FKH	SE	57	218	ESg		1241	34.83	-3.66							1.0
HWQ	SZ	87	242	EPg		1241	35.57	-0.27							1.0
HWQ	SN	87	242	ESg		1241	46.09	0.05							1.0
BHL	BZ	132	232	EPg		1241	43.39	0.86							1.0
BHL	BN	132	232	ESg		1241	58.21	0.53							1.0

October 23 2006 Hour: 0:31 46.4 Kepulauan Sangihe Mw=5.6 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		032	5.94								

October 23 2006 Hour: 21:25 45.9 Izu Islands Japan Mw=6.4 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2129	55.92								
RCY	SZ			EP		2129	57.12								
BEYL	BZ			EP		2129	57.41								

October 24 2006 Hour: 3:14 51.0 Mindanao Mw=6.1 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		316	32.72								
BEYL	BZ			EP		316	33.32								

October 24 2006 Hour: 3:39 34.4 Lat: 34.82N Lon: 27.09E Depth: 0 Agency: REL Regional
Magnitudes: 4.7MC REL Rms: 0.6 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	BZ	780	95	EPn		341	17.00	-0.42							1.0
BEYL	BE	780	95	Sn		342	33.75	0.13							1.0
BHL	BZ	794	95	EPn		341	18.54	-0.72	247						1.0
BHL	BN	794	95	Sn		342	35.76	-1.07							1.0
HWQ	SZ	815	92	EPn		341	21.32	-0.53							1.0

HWQ	SN	815	92	Sn	342	41.08	-0.26										1.0
RCY	SZ	819	98	EPn	341	22.58	0.29										1.0
RCY	SE	819	98	Sn	342	43.32	1.22										1.0

October 24 2006 Hour: 3:47 1.8 Dodecanese Islands mb=4.7 Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		347	51.37								
BEYL	BZ			EP		347	49.41								

October 24 2006 Hour: 14:1 54.9 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		14	2	29.30							
BHL	BZ			EP		14	2	28.47							

October 26 2006 Hour: 20:8 46.6 Lat: 36.13N Lon: 36.46E Depth: 15 Agency: REL Regional
Magnitudes: 3.4MC REL Rms: 2.0 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	210	193	EP		20	9	15.54	-1.80						1.0
HWQ	SN	210	193	ES		20	9	37.15	-2.95						1.0
BHL	BZ	257	197	EP		20	9	23.20	0.05	81					1.0
BHL	BN	257	197	ES		20	9	50.18	-0.03						1.0

October 26 2006 Hour: 20:43 19.7 Lat: 35.97N Lon: 36.50E Depth: 0 Agency: REL Regional
Magnitudes: 3.4MC REL Rms: 2.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	194	195	EP		2043	48.23	-1.76							1.0
HWQ	SN	194	195	ES		2044	10.05	-2.35							1.0
BHL	BZ	242	199	EP		2043	53.54	-2.33	80						1.0
BHL	BN	242	199	ES		2044	21.82	-0.81							1.0
BEYL	BE	250	202	ES		2044	25.99	1.70							1.0

October 27 2006 Hour: 18:26 25.0 Fiji Islands mb=5.6 Agency: REL Distant

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1826	28.55								

October 28 2006 Hour: 9:38 26.7 Lat: 34.36N Lon: 36.54E Depth: 15 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
HWQ	SZ	56	260	EPg		938	36.65	0.72							1.0
HWQ	SN	56	260	ESg		938	42.40	-0.33							1.0
BHL	BZ	97	238	EPg		938	41.90	-0.02							1.0
BHL	BE	97	238	ESg		938	53.12	-0.04							1.0
RCY	SZ	118	215	EPg		938	44.24	-0.91	49						1.0
RCY	SN	118	215	ESg		938	58.35	-0.43							1.0

October 28 2006 Hour: 14:26 30.7 Lat: 34.42N Lon: 36.90E Depth: 0 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	90	260	EPg		1426	45.38	0.24	63						1.0
HWQ	SE	90	260	ESg		1426	55.44	-0.40							1.0
BHL	BZ	129	244	EPg		1426	51.67	0.19							1.0
BHL	BE	129	244	ESg		1427	7.20	0.34							1.0
RCY	SZ	145	224	EPg		1426	53.64	-0.38							1.0

October 29 2006 Hour: 8:33 37.9 Lat: 35.29N Lon: 35.87E Depth: 0 Agency: REL Local
Magnitudes: 3.3MC REL Rms: 0.3 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	113	177	EP		833	55.72	-0.42	80						1.0
BHL	BZ	156	187	EP		834	2.37	-0.34							1.0
BHL	BE	156	187	ES		834	20.97	-0.10							1.0
RCY	SZ	201	181	EP		834	9.21	0.18							1.0
RCY	SE	201	181	ES		834	32.45	0.39							1.0

October 29 2006 Hour: 11:25 3.0 Lat: 34.75N Lon: 36.62E Depth: 10 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.2 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	81	230	EP		1125	16.44	0.31	47						1.0
HWQ	SN	81	230	ES		1125	25.95	0.07							1.0
BHL	BZ	129	224	EP		1125	22.98	-0.23							1.0
BHL	BN	129	224	ES		1125	38.00	-0.20							1.0

October 29 2006 Hour: 11:29 38.3 Lat: 33.59N Lon: 36.49E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.7 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	64	260	EPg		1129	48.35	-0.24	56						1.0
RCY	SE	64	260	ESg		1129	55.54	-0.66							1.0
BHL	BZ	85	294	EPg		1129	50.91	-1.14							1.0
BHL	SN	85	294	ESg		1130	2.38	0.17							1.0
HWQ	SZ	92	327	EPg		1129	53.93	0.87							1.0
HWQ	SE	92	327	ESg		1130	4.14	0.16							1.0

October 29 2006 Hour: 12: 2 12.8 Lat: 33.63N Lon: 36.55E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.2 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	70	257	EPg		12 2	24.20	0.15	39						1.0
RCY	SN	70	257	ESg		12 2	32.13	-0.28							1.0
BHL	BZ	89	290	EPg		12 2	26.98	-0.05							1.0
BHL	BE	89	290	ESg		12 2	37.70	0.10							1.0

October 30 2006 Hour: 11:22 18.1 Lat: 34.70N Lon: 36.69E Depth: 14 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
HWQ	SZ	83	236	EPg		1122	31.41	0.08	54						1.0
HWQ	SE	83	236	ESg		1122	40.83	-0.28							1.0
BHL	BZ	130	227	EPg		1122	38.39	0.13							1.0
BHL	BN	130	227	ESg		1122	53.43	0.27							1.0

October 30 2006 Hour: 12: 2 9.2 Lat: 33.58N Lon: 36.48E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.5 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	62	260	EPg		12 2	19.67	0.48	38						1.0
RCY	SE	62	260	ESg		12 2	25.95	-0.63							1.0
BHL	BZ	84	296	EPg		12 2	23.06	0.28							1.0
BHL	BN	84	296	ESg		12 2	32.86	0.02							1.0
HWQ	SZ	92	328	EPg		12 2	23.93	-0.05							1.0

October 31 2006 Hour: 3: 9 16.2 Lat: 33.71N Lon: 35.82E Depth: 14 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.9 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	25	180	EPg		3 9	20.17	-0.84	34						1.0
RCY	SE	25	180	ESg		3 9	24.52	-0.04							1.0
BHL	BZ	26	324	EPg		3 9	20.75	-0.33							1.0
BHL	BN	26	324	ESg		3 9	24.60	-0.07							1.0
HWQ	SZ	64	11	EPg		3 9	25.58	-1.21							1.0
HWQ	SN	64	11	ESg		3 9	36.07	1.46							1.0

October 31 2006 Hour: 11:32 17.5 Lat: 34.53N Lon: 36.76E Depth: 0 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 1.0 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	47	226	EPg		1132	23.70	-1.31	56						1.0
FKH	SN	47	226	ESg		1132	28.81	-1.76							1.0
HWQ	SZ	80	250	EPg		1132	30.83	0.39							1.0
HWQ	SN	80	250	ESg		1132	40.05	0.04							1.0
BHL	BZ	124	236	EPg		1132	38.32	0.89							1.0
BHL	BN	124	236	ESg		1132	52.56	0.39							1.0

October 31 2006 Hour: 11:40 0.5

Agency: REL Local

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ			EPg		1140	27.64								
HWQ	SZ			EPg		1140	31.91								
FKH	SN			ESg		1140	34.66								
HWQ	SN			ESg		1140	38.04								

October 31 2006 Hour: 12:13 44.5 Lat: 34.35N Lon: 36.54E Depth: 54 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
FKH	SZ	18	225	EPg		1213	52.71	-0.05	41						1.0
FKH	SN	18	225	ESg		1213	58.89	0.03							1.0
HWQ	SZ	55	262	EPg		1213	55.58	0.05							1.0
HWQ	SN	55	262	ESg		1214	3.67	-0.03							1.0
BHL	SZ	95	239	EPg		1213	59.89	0.00							1.0

Epicentral Map of Lebanon

October 2006

Magnitudes

- Ml = 2
- Ml = 3
- Ml = 4
- Ml = 5
- ★ Felt

