

Republic of Lebanon
National Council for Scientific Research

Provisional Seismological Bulletin

from the

NATIONAL SEISMIC NETWORK

November

2016

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	Nov2000-Sep2012
FKH	3414.69N	3624.61E	1152	FAKEHEH	Opened Dec 2004
RCY	3329.79N	3550.14E	1370	RACHAYA	Opened Jun 2006
BEYL	3352.30N	3529.59E	49	BEIRUT	Opened Jul 2006
NAQL	3307.02N	3508.46E	83	NAQOURA	Jul2008-Jan2012
DQRL	3342.34N	3534.21E	963	DEIR QAMAR	Opened Mar 2010
QRWL	3332.86N	3540.93E	875	QARAOUN	Opened Oct 2011
SHBL	3320.90N	3544.63E	1422	CHEBAA	Opened Oct 2011
ZAHL	3351.48N	3553.12E	1211	ZAHLE	Opened Aug 2015

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.

November 1 2016 Hour: 18:58 21.2

Agency: REL Regional

EMSC OT=18:58:21.2 36.40N 26.38E 117Km M=4.3 DODECANESE ISLANDS.1 TGEG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		19	0	10.57							
DQRL	SZ			EP		19	0	11.53							
HWQ	SZ			EP		19	0	13.13							
RCY	SZ			EP		19	0	15.87							

November 2 2016 Hour: 14:23 42.5 Lat: 33.80N

Lon: 35.75E Depth: 18 Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.0 secs

BAABDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	321	EP		1423	46.28	-0.04	32						1.0
DQRL	SZ	20	237	EP		1423	46.91	0.01							1.0
DQRL	SN	20	237	ES		1423	50.21	0.03							1.0
QRWL	SZ	29	193	EP		1423	47.96	-0.05							1.0
QRWL	SN	29	193	ES		1423	52.12	0.02							1.0
RCY	SZ	35	167	EP		1423	48.83	0.00							1.0
HWQ	SZ	56	19	EP		1423	51.76	0.04							1.0

November 2 2016 Hour: 18:0 58.3 Lat: 33.44N

Lon: 36.59E Depth: 6 Agency: REL Local

Magnitudes: 3.0MC REL

Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	70	275	EP		18	1	9.63	-0.08						1.0
RCY	SN	70	275	ES		18	1	18.15	-0.01						1.0
QRWL	SZ	85	278	EP		18	1	12.16	0.09						1.0
QRWL	SN	85	278	ES		18	1	22.21	-0.07						1.0
DQRL	SZ	99	287	EP		18	1	14.34	0.04	51					1.0
DQRL	SN	99	287	ES		18	1	26.24	0.08						1.0
BHL	BZ	101	301	EP		18	1	14.51	-0.05						1.0
HWQ	SZ	110	327	EP		18	1	15.90	-0.05						0.2

November 3 2016 Hour: 9:48 14.9 Lat: 33.82N

Lon: 35.72E Depth: 31 Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.0 secs

BAABDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	11	325	EP		948	20.11	-0.02	36						1.0
DQRL	SZ	19	228	EP		948	20.62	-0.02							1.0
DQRL	SN	19	228	ES		948	24.91	0.02							1.0
QRWL	SZ	31	187	EP		948	21.67	-0.03							1.0
RCY	SZ	38	164	EP		948	22.57	0.05							1.0
RCY	SN	38	164	ES		948	28.14	-0.02							1.0
HWQ	SZ	55	22	EP		948	24.71	0.08							0.2

November 3 2016 Hour: 14:22 21.5 Lat: 33.78N

Lon: 35.78E Depth: 7 Agency: REL Local

Magnitudes: 2.7MC REL

Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	13	48	EP		1422	24.08	0.03							1.0
BHL	BZ	18	320	EP		1422	24.68	-0.08	40						1.0
DQRL	SZ	21	247	EP		1422	25.17	-0.03							1.0
DQRL	SN	21	247	ES		1422	27.99	0.06							1.0
QRWL	SZ	27	200	EP		1422	26.10	-0.01							1.0
RCY	SZ	32	171	EP		1422	26.90	0.07							1.0
RCY	SN	32	171	ES		1422	30.71	-0.06							1.0
HWQ	SZ	57	15	EP		1422	30.89	0.02							1.0

November 3 2016 Hour: 15:11 20.3 Lat: 33.77N Lon: 35.77E Depth: 0 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	324	EP		1511	23.15	-0.03	25						1.0
DQRL	SZ	20	247	EP		1511	23.49	-0.00							1.0
DQRL	SN	20	247	ES		1511	25.86	0.01							1.0
RCY	SZ	32	168	EP		1511	25.39	-0.01							1.0
RCY	SN	32	168	ES		1511	29.15	-0.01							1.0
HWQ	SZ	58	17	EP		1511	29.75	0.03							1.0

November 3 2016 Hour: 15:57 7.9 Lat: 33.79N Lon: 35.76E Depth: 13 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	15	322	EP		1557	11.32	-0.04	35						1.0
DQRL	SZ	20	240	EP		1557	12.00	0.09							1.0
DQRL	SN	20	240	ES		1557	14.87	0.01							1.0
QRWL	SZ	28	194	EP		1557	12.90	-0.16							1.0
RCY	SZ	34	167	EP		1557	13.94	0.03							1.0
RCY	SN	34	167	ES		1557	18.38	0.04							1.0
HWQ	SZ	56	18	EP		1557	17.28	0.02							1.0

November 3 2016 Hour: 23:9 32.5 Agency: REL Regional

EMSC OT=23:09:32.5 33.47N 34.42E 35Km M=2.4 EASTERN MEDITERRAPGCP'UGC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		23 9	49.71								
DQRL	SZ			EP		23 9	46.88								

November 4 2016 Hour: 1:37 1.5 Lat: 33.65N Lon: 34.65E Depth: 30 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

OFFSHORE SOUTH LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	86	85	EP		137	15.28	-0.12							1.0
DQRL	SN	86	85	ES		137	25.79	0.07							1.0
BHL	BZ	97	73	EP		137	16.90	-0.06							1.0
RCY	SZ	111	98	EP		137	18.77	0.02	44						1.0
ZAHL	SZ	117	78	EP		137	19.53	0.12							1.0
ZAHL	SN	117	78	ES		137	32.62	-0.07							1.0
HWQ	SZ	139	59	EP		137	22.17	0.04							1.0

November 4 2016 Hour: 15:16 45.0 Lat: 33.79N Lon: 35.78E Depth: 12 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	317	EP		1516	48.43	-0.06	38						1.0
DQRL	SZ	22	243	EP		1516	49.03	-0.08							1.0
DQRL	SN	22	243	ES		1516	52.24	0.08							1.0
QRWL	SZ	29	198	EP		1516	50.09	-0.01							1.0
RCY	SZ	33	171	EP		1516	50.87	0.05							1.0
RCY	SN	33	171	ES		1516	55.12	-0.03							1.0
HWQ	SZ	56	16	EP		1516	54.34	0.05							1.0

November 5 2016 Hour: 1:52 2.7 Lat: 33.14N Lon: 35.58E Depth: 4 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	46	30	EP		152	10.21	-0.00	47						1.0
RCY	SN	46	30	ES		152	15.77	-0.00							1.0
QRWL	SZ	47	11	EP		152	10.23	0.00							1.0
DQRL	SZ	63	359	EP		152	12.88	-0.02							1.0
DQRL	SN	63	359	ES		152	20.45	0.00							1.0
BHL	BZ	85	4	EP		152	16.50	0.02							1.0

HWQ SZ 131 15 EP 152 23.62-0.00 1.0

November 5 2016 Hour: 2:35 10.7 Lat: 33.16N Lon: 35.57E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	45	34	EP		235	17.90	-0.00	37						1.0
RCY	SN	45	34	ES		235	23.26	-0.01							1.0
DQRL	SZ	61	0	EP		235	20.35	-0.08							1.0
DQRL	SN	61	0	ES		235	27.68	0.01							1.0
BHL	BZ	83	5	EP		235	24.09	0.04							1.0
HWQ	SZ	129	16	EP		235	31.50	0.05							1.0

November 6 2016 Hour: 14:7 45.6 Lat: 34.66N Lon: 36.32E Depth: 3 Agency: REL Local
Magnitudes: 3.3MC REL Rms: 0.1 secs

AKKAR REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	SZ	54	219	EP		14 7	54.49	0.05							1.0
HWQ	SN	54	219	ES		14 8	0.91	-0.05							1.0
ZAHL	SZ	97	204	EP		14 8	1.44	0.08							1.0
BHL	BZ	104	216	EP		14 8	2.35	-0.03	84						1.0
DQRL	SZ	126	213	EP		14 8	5.92	-0.01							1.0
DQRL	SN	126	213	ES		14 8	20.99	0.05							1.0
RCY	SZ	136	199	EP		14 8	7.36	-0.08							1.0

November 6 2016 Hour: 19:46 5.1 Lat: 34.46N Lon: 34.08E Depth: 0 Agency: REL Regional
Magnitudes: 4.0MC REL Rms: 0.1 secs

CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	SZ	145	116	EP		1946	28.34	-0.04							1.0
BHL	BZ	157	113	EP		1946	30.11	-0.09	197						1.0
BHL	BN	157	113	ES		1946	48.71	-0.03							1.0
DQRL	SZ	161	121	EP		1946	30.62	-0.06							1.0
DQRL	SE	161	121	ES		1946	49.62	0.02							1.0
HWQ	SZ	173	96	EP		1946	32.43	-0.00							1.0
HWQ	SE	173	96	ES		1946	52.68	0.04							1.0
QRWL	SZ	179	124	EP		1946	33.38	0.01							1.0
RCY	SZ	194	123	EP		1946	35.55	0.15							1.0

November 7 2016 Hour: 3:52 21.8 Lat: 33.31N Lon: 35.78E Depth: 4 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	22	14	EP		352	25.40	0.01	46						1.0
RCY	SN	22	14	ES		352	28.04	-0.01							1.0
DQRL	SZ	48	336	EP		352	29.66	0.04							1.0
DQRL	SN	48	336	ES		352	35.41	-0.01							1.0
ZAHL	SZ	62	9	EP		352	31.79	-0.01							1.0
ZAHL	SN	62	9	ES		352	39.23	0.02							1.0
BHL	BZ	67	350	EP		352	32.62	-0.04							1.0
HWQ	SZ	109	8	EP		352	39.42	0.07							0.2

November 7 2016 Hour: 17:37 18.9 Lat: 34.04N Lon: 35.96E Depth: 3 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	21	199	EP		1737	22.29	-0.04							1.0
ZAHL	SN	21	199	ES		1737	24.91	0.02							1.0
HWQ	SZ	27	357	EP		1737	23.27	0.02							1.0
BHL	BZ	32	243	EP		1737	24.01	-0.04	38						1.0
DQRL	SZ	52	225	EP		1737	27.22	0.02							1.0
DQRL	SN	52	225	ES		1737	33.38	0.02							1.0
RCY	SZ	61	191	EP		1737	28.74	0.01							1.0

November 7 2016 Hour: 23:58 3.2 Lat: 33.79N Lon: 35.78E Depth: 6 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	13	51	EP		2358	5.58	-0.06							1.0
BHL	BZ	17	318	EP		2358	6.27	-0.04	54						1.0
BHL	BN	17	318	ES		2358	8.57	-0.01							1.0
DQRL	SZ	21	245	EP		2358	6.95	0.04							1.0
BEYL	SZ	28	290	EP		2358	8.23	0.33							0.2
QRWL	SZ	28	199	EP		2358	7.68	-0.25							1.0
QRWL	SN	28	199	ES		2358	11.54	0.14							1.0
RCY	SZ	33	171	EP		2358	8.59	-0.08							1.0
RCY	SN	33	171	ES		2358	12.78	0.09							1.0
HWQ	SZ	57	16	EP		2358	12.60	0.15							1.0

November 8 2016 Hour: 14:59 42.1 Lat: 33.78N Lon: 35.78E Depth: 2 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.0 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	13	48	EP		1459	44.14	0.01							1.0
BHL	BZ	18	318	EP		1459	44.93	-0.08	38						1.0
DQRL	SZ	22	247	EP		1459	45.58	-0.00							1.0
DQRL	SN	22	247	ES		1459	48.25	0.06							1.0
QRWL	SZ	28	200	EP		1459	46.51	-0.05							1.0
RCY	SZ	32	172	EP		1459	47.28	0.02							1.0
RCY	SN	32	172	ES		1459	51.10	-0.01							1.0
HWQ	SZ	57	15	EP		1459	51.30	0.06							1.0

November 8 2016 Hour: 15:14 34.3 Lat: 33.78N Lon: 35.78E Depth: 6 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	12	48	EP		1514	36.70	-0.02							1.0
ZAHL	SN	12	48	ES		1514	38.49	0.01							1.0
BHL	BZ	18	318	EP		1514	37.50	-0.01	43						1.0
DQRL	SZ	22	247	EP		1514	38.11	0.05							1.0
DQRL	SN	22	247	ES		1514	40.81	-0.01							1.0
QRWL	SZ	28	200	EP		1514	38.93	-0.07							1.0
RCY	SZ	32	172	EP		1514	39.73	0.04							1.0
HWQ	SZ	57	15	EP		1514	43.62	0.03							0.2

November 9 2016 Hour: 15:14 3.0 Lat: 33.79N Lon: 35.77E Depth: 6 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	14	54	EP		1514	5.58	0.03							1.0
BHL	BZ	17	321	EP		1514	5.93	-0.07	26						1.0
DQRL	SZ	20	244	EP		1514	6.57	0.04							1.0
DQRL	SN	20	244	ES		1514	9.14	0.02							1.0
RCY	SZ	33	169	EP		1514	8.46	-0.02							1.0
RCY	SN	33	169	ES		1514	12.49	-0.02							1.0
HWQ	SZ	57	17	EP		1514	12.65	0.34							0.2

November 10 2016 Hour: 13: 6 34.6 Lat: 33.79N Lon: 35.76E Depth: 13 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	321	EP		13 6	38.10	-0.01	46						1.0
DQRL	SZ	20	242	EP		13 6	38.59	-0.04							1.0
DQRL	SN	20	242	ES		13 6	41.66	0.03							1.0
QRWL	SZ	28	196	EP		13 6	39.68	-0.00							1.0
RCY	SZ	33	169	EP		13 6	40.48	-0.01							1.0
RCY	SN	33	169	ES		13 6	44.87	0.01							1.0

HWQ SZ 57 17 EP 13 6 43.92 0.02 1.0

November 10 2016 Hour: 17:35 37.5 Agency: REL Distant

EMSC OT=17:35:37.5 20.46S 178.24W 539Km M=5.6 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1754	20.38								
RCY	SZ			EP		1754	21.15								
DQRL	SZ			EP		1754	21.32								
QRWL	SZ			EP		1754	21.22								

November 10 2016 Hour: 22:43 0.6 Agency: REL Regional

EMSC OT=22:43:00.6 35.11N 30.86E 80Km M=3.6 EASTERN MEDITERRANGCP'UGC

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ			EP		2244	0.85								
QRWL	SZ			EP		2244	3.33								
RCY	SZ			EP		2244	4.67								

November 12 2016 Hour: 16:15 51.5 Agency: REL Distant

EMSC OT=16:15:51.5 25.03S 178.72E 571Km M=5.9 SOUTH OF FIJI ISLAPFU

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1634	28.37								
SHBL	BZ			EP		1634	28.91								
BHL	BZ			EP		1634	28.39								

November 13 2016 Hour: 9:42 19.1 Lat: 32.21N Lon: 35.88E Depth: 6 Agency: REL Regional

Magnitudes: 3.2MC REL

Rms: 0.2 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	142	358	EP		942	41.46	-0.06							1.0
RCY	SN	142	358	ES		942	58.15	0.02							1.0
DQRL	SZ	168	350	EP		942	45.33	0.06	71						1.0
DQRL	SN	168	350	ES		943	4.64	-0.02							1.0
BHL	BZ	189	354	EP		942	47.93	-0.04							1.0
HWQ	SZ	229	2	EP		942	53.69	0.69							0.2

November 13 2016 Hour: 11:2 58.4 Agency: REL Distant

EMSC OT=11:02:58.4 42.69S 172.97E 10Km M=7.9 SOUTH ISLAND OF NGY 'ZGCNCPF

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	BZ			EP		1122	35.77								
RCY	SZ			EP		1122	37.00								
QRWL	SZ			EP		1122	36.13								
DQRL	SZ			EP		1122	37.60								
ZAHL	SZ			EP		1122	37.92								
BHL	BZ			EP		1122	37.00								
HWQ	SZ			EP		1122	38.05								

November 13 2016 Hour: 11:32 6.7 Agency: REL Distant

EMSC OT=11:32:06.7 42.25S 173.62E 10Km M=6.4 SOUTH ISLAND OF NGY 'ZEALAND

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1151	44.82								
DQRL	SZ			EP		1151	45.31								
BHL	BZ			EP		1151	46.15								
HWQ	SZ			EP		1151	45.52								

November 14 2016 Hour: 11:49 51.3 Lat: 33.78N Lon: 35.77E Depth: 7 Agency: REL Local

Magnitudes: 2.8MC REL

Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	14	51	EP		1149	53.97	0.01							1.0
BHL	BZ	18	323	EP		1149	54.37	-0.07	43						1.0
DQRL	SZ	20	246	EP		1149	54.87	0.06							1.0
DQRL	SN	20	246	ES		1149	57.46	0.04							1.0
QRWL	SZ	27	197	EP		1149	55.72	-0.11							1.0
QRWL	SN	27	197	ES		1149	59.16	-0.02							1.0

RCY	SZ	32	169	EP		1149	56.70	0.07										1.0
HWQ	SZ	58	16	EP		1150	0.75	0.03										1.0

November 14 2016 Hour: 15:39 6.9 Lat: 33.78N Lon: 35.77E Depth: 5 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	324	EP		1539	9.92	-0.04	23						1.0
DQRL	SZ	20	247	EP		1539	10.38	0.08							1.0
DQRL	SN	20	247	ES		1539	12.79	-0.01							1.0
QRWL	SZ	27	197	EP		1539	11.24	-0.09							1.0
RCY	SZ	32	168	EP		1539	12.16	0.01							1.0
RCY	SN	32	168	ES		1539	16.04	0.02							1.0
HWQ	SZ	58	16	EP		1539	16.62	0.28							0.2

November 15 2016 Hour: 15:13 49.0 Lat: 33.69N Lon: 35.39E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

OFFSHORE CENTRAL LEBANON

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	17	83	EP		1513	51.66	-0.07	33						1.0
DQRL	SN	17	83	ES		1513	53.74	0.01							1.0
QRWL	SZ	31	120	EP		1513	54.08	0.04							1.0
BHL	BZ	34	45	EP		1513	54.60	0.04							1.0
BHL	BN	34	45	ES		1513	58.67	0.01							1.0
HWQ	BZ	83	38	EP		1514	2.45	-0.02							1.0

November 16 2016 Hour: 0:30 30.8 Agency: REL Distant

EMSC OT=00:30:30.8 20.20S 173.03W 30Km M=5.7 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		050	14.26								
BHL	BZ			EP		050	14.95								

November 16 2016 Hour: 15:7 40.8 Lat: 33.78N Lon: 35.76E Depth: 0 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	15	54	EP		157	43.23	0.00							1.0
BHL	BZ	17	326	EP		157	43.52	-0.02	23						1.0
DQRL	SZ	19	245	EP		157	43.96	0.04							1.0
DQRL	SN	19	245	ES		157	46.18	-0.02							1.0
RCY	SZ	32	167	EP		157	46.01	-0.04							1.0
RCY	SN	32	167	ES		157	49.92	0.02							1.0
HWQ	BZ	58	18	EP		157	50.20	0.01							1.0

November 17 2016 Hour: 10:13 2.2 Lat: 33.87N Lon: 35.83E Depth: 0 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BAABDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	5	102	EP		1013	2.99	0.00							1.0
BHL	BZ	17	284	EP		1013	5.01	0.02	45						1.0
BHL	BN	17	284	ES		1013	7.02	-0.04							1.0
DQRL	SZ	30	234	EP		1013	7.15	0.05							1.0
RCY	SZ	41	180	EP		1013	8.81	-0.01							1.0
RCY	SN	41	180	ES		1013	13.71	-0.02							1.0
HWQ	BZ	47	13	EP		1013	9.74	-0.01							1.0

November 17 2016 Hour: 15:5 11.7 Lat: 33.79N Lon: 35.71E Depth: 19 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	14	339	EP		155	15.59	-0.02	23						1.0
BHL	BN	14	339	ES		155	18.51	0.02							1.0
DQRL	SZ	16	234	EP		155	15.75	-0.02							1.0
RCY	SZ	34	160	EP		155	18.11	0.06							1.0

RCY	SN	34	160	ES		15	5	22.69-0.04										1.0
HWQ	BZ	59	22	EP		15	5	21.43-0.01										1.0

November 18 2016 Hour: 20:54 46.7 Agency: REL Distant
EMSC OT=20:54:46.7 28.21S 177.01W 11Km M=5.5 KERMADEC ISLANDS REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 BHL BZ EP 2114 39.96
 HWQ BZ EP 2114 37.62

November 19 2016 Hour: 21:14 26.6 Lat: 38.96N Lon: 35.09E Depth: 33 Agency: REL Regional
Magnitudes: 4.4MC REL Rms: 0.1 secs

TURKEY REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 HWQ BZ 525 171 EP 2115 34.24-0.26 241 1.0
 HWQ BN 525 171 ES 2116 24.83 0.10 1.0
 BHL BZ 563 175 EP 2115 39.25 0.14 1.0
 ZAHL SZ 571 173 EP 2115 40.10 0.09 1.0
 DQRL SZ 585 176 EP 2115 41.72 0.03 1.0
 DQRL SN 585 176 ES 2116 37.14-0.10 1.0

November 19 2016 Hour: 22:35 17.9 Lat: 33.18N Lon: 35.35E Depth: 0 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.1 secs

BENT JBEIL REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ 57 52 EP 2235 27.09-0.04 1.0
 RCY SN 57 52 ES 2235 33.99 0.02 1.0
 DQRL SZ 62 19 EP 2235 27.78-0.07 33 1.0
 DQRL SN 62 19 ES 2235 35.10-0.12 1.0
 BHL BZ 85 19 EP 2235 31.67 0.05 1.0
 BHL BN 85 19 ES 2235 41.86 0.09 1.0
 ZAHL SZ 90 33 EP 2235 32.40-0.03 1.0
 HWQ BZ 134 24 EP 2235 39.56 0.10 1.0

November 19 2016 Hour: 22:49 7.7 Lat: 33.28N Lon: 35.39E Depth: 0 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

SOUR REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 DQRL SZ 50 20 EP 2249 15.57-0.15 38 1.0
 DQRL SN 50 20 ES 2249 21.68 0.00 1.0
 BHL BZ 73 19 EP 2249 19.57 0.08 1.0
 BHL BN 73 19 ES 2249 28.23-0.00 1.0
 ZAHL SZ 79 36 EP 2249 20.34-0.03 1.0
 HWQ BZ 122 25 EP 2249 27.43 0.10 1.0

November 19 2016 Hour: 22:53 1.1 Lat: 33.19N Lon: 35.38E Depth: 1 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.0 secs

BENT JBEIL REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 RCY SZ 55 51 EP 2253 9.94 0.04 1.0
 RCY SN 55 51 ES 2253 16.38-0.03 1.0
 DQRL SZ 60 17 EP 2253 10.77-0.01 44 1.0
 DQRL SE 60 17 ES 2253 17.92-0.03 1.0
 BHL BZ 83 18 EP 2253 14.48-0.06 1.0
 BHL BN 83 18 ES 2253 24.55 0.06 1.0
 ZAHL SZ 88 32 EP 2253 15.32 0.05 1.0
 HWQ BZ 132 23 EP 2253 22.29-0.00 1.0

November 19 2016 Hour: 23: 6 35.1 Lat: 33.15N Lon: 35.35E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

BENT JBEIL REGION
 STAT CO DIST AZI PHASE P HRMN SECON TRES CODA AMPL PERI BAZ ARES VELO WT
 QRWL SZ 54 35 EP 23 6 43.68-0.08 1.0
 RCY SZ 59 49 EP 23 6 44.59-0.05 1.0
 RCY SN 59 49 ES 23 6 51.71 0.01 1.0

DQRL	SZ	65	18	EP		23	6	45.45-0.12	50								1.0
DQRL	SN	65	18	ES		23	6	53.40	0.08								1.0
BHL	BZ	88	18	EP		23	6	49.34	0.01								1.0
BHL	BN	88	18	ES		23	6	59.78-0.09									1.0
ZAHL	SZ	93	32	EP		23	6	50.23	0.16								1.0
HWQ	BZ	137	24	EP		23	6	57.21	0.08								1.0

November 19 2016 Hour: 23:37 25.7 Lat: 33.25N Lon: 35.41E Depth: 3 Agency: REL Local
Magnitudes: 3.6MC REL Rms: 0.1 secs

BENT JBEIL REGION

Earthquake was felt

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	41	37	EP		2337	32.44	0.06							1.0
RCY	SZ	48	55	EP		2337	33.36-0.07								1.0
RCY	SN	48	55	ES		2337	39.18	0.02							1.0
DQRL	SZ	52	16	EP		2337	34.13-0.05		143						1.0
DQRL	SN	52	16	ES		2337	40.34-0.12								1.0
BEYL	SZ	69	6	EP		2337	36.88	0.02							1.0
BHL	BZ	76	17	EP		2337	37.94	0.01							1.0
BHL	BN	76	17	ES		2337	47.13	0.15							1.0
ZAHL	SZ	80	33	EP		2337	38.64-0.02								1.0
HWQ	BZ	124	23	EP		2337	45.65	0.03							1.0
HWQ	BN	124	23	ES		2338	0.33-0.04								1.0

November 20 2016 Hour: 3:5 42.4 Lat: 33.23N Lon: 35.36E Depth: 1 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.0 secs

SOUR REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	53	56	EP		3	5	50.96-0.00							1.0
RCY	SN	53	56	ES		3	5	57.28-0.01							1.0
DQRL	SZ	56	20	EP		3	5	51.37-0.06	48						1.0
DQRL	SN	56	20	ES		3	5	58.17	0.08						1.0
BHL	BZ	79	20	EP		3	5	55.21	0.02						1.0
BHL	BN	79	20	ES		3	6	4.57-0.07							1.0
ZAHL	SZ	85	35	EP		3	5	56.10	0.03						1.0
HWQ	BZ	128	25	EP		3	6	3.07	0.02						1.0

November 20 2016 Hour: 5:9 2.8 Lat: 33.20N Lon: 35.37E Depth: 0 Agency: REL Local
Magnitudes: 2.9MC REL Rms: 0.1 secs

BENT JBEIL REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	54	52	EP		5	9	11.61	0.04						1.0
RCY	SN	54	52	ES		5	9	18.06-0.01							1.0
DQRL	SZ	59	18	EP		5	9	12.33-0.02	51						1.0
DQRL	SN	59	18	ES		5	9	19.43	0.01						1.0
BHL	BZ	83	18	EP		5	9	16.07-0.04							1.0
ZAHL	SZ	87	33	EP		5	9	16.80-0.09							1.0
HWQ	BZ	131	24	EP		5	9	24.04	0.11						1.0

November 21 2016 Hour: 6:59 12.9 Lat: 33.88N Lon: 35.84E Depth: 2 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

METN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	277	EP		659	15.71-0.01		36						1.0
BHL	BN	17	277	ES		659	17.81-0.00								1.0
DQRL	SZ	32	231	EP		659	18.08	0.03							1.0
RCY	SZ	43	180	EP		659	19.83-0.05								1.0
RCY	SN	43	180	ES		659	25.06	0.02							1.0
HWQ	BZ	45	13	EP		659	20.17	0.01							1.0

November 21 2016 Hour: 14:24 33.4 Lat: 33.97N Lon: 36.06E Depth: 3 Agency: REL Local
Magnitudes: 2.6MC REL Rms: 0.0 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	36	344	EP		1424	39.24	-0.02	32						1.0
HWQ	BN	36	344	ES		1424	43.58	0.01							1.0
BHL	BZ	38	259	EP		1424	39.56	-0.02							1.0
DQRL	SZ	54	237	EP		1424	42.11	0.00							1.0
RCY	SZ	56	201	EP		1424	42.52	-0.01							1.0
RCY	SN	56	201	ES		1424	49.25	-0.01							1.0
QRWL	SZ	58	217	EP		1424	42.86	0.03							1.0

November 21 2016 Hour: 20:59 49.4 Agency: REL Distant

EMSC OT=20:59:49.4 37.38N 141.40E 10Km M=6.9 NEAR EAST COAST HONSHU, JAPAN

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2112	3.26								
HWQ	BZ			EP		2112	1.67								

November 22 2016 Hour: 3:9 45.7 Lat: 34.04N Lon: 35.73E Depth: 18 Agency: REL Local
Magnitudes: 3.1MC REL Rms: 0.1 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	206	EP		3 9	49.67	-0.10	66						1.0
BHL	BN	17	206	ES		3 9	52.80	0.01							1.0
ZAHL	SZ	25	145	EP		3 9	50.72	0.04							1.0
ZAHL	SN	25	145	ES		3 9	54.39	0.01							1.0
BEYL	SZ	29	230	EP		3 9	51.08	-0.04							1.0
HWQ	BZ	33	37	EP		3 9	51.75	-0.00							1.0
HWQ	BN	33	37	ES		3 9	56.25	0.01							1.0
DQRL	SZ	40	202	EP		3 9	52.87	0.17							1.0
RCY	SZ	61	171	EP		3 9	55.63	-0.10							1.0

November 22 2016 Hour: 14:29 50.4 Lat: 33.80N Lon: 35.80E Depth: 6 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.0 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	18	310	EP		1429	53.53	-0.05	30						1.0
DQRL	SZ	24	244	EP		1429	54.48	-0.04							1.0
DQRL	SN	24	244	ES		1429	57.59	0.06							1.0
RCY	SZ	34	175	EP		1429	56.08	-0.01							1.0
RCY	SN	34	175	ES		1430	0.26	-0.00							1.0
HWQ	BZ	55	14	EP		1429	59.37	0.05							1.0

November 22 2016 Hour: 15:32 47.2 Lat: 33.82N Lon: 35.77E Depth: 20 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

BAABDA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	11	69	EP		1532	51.05	0.01							1.0
ZAHL	SN	11	69	ES		1532	53.88	-0.02							1.0
BHL	BZ	14	310	EP		1532	51.33	0.07	27						1.0
DQRL	SZ	23	236	EP		1532	52.03	-0.07							1.0
DQRL	SN	23	236	ES		1532	55.76	0.00							1.0
RCY	SZ	37	171	EP		1532	53.89	0.03							1.0
HWQ	BZ	53	17	EP		1532	56.10	-0.03							1.0

November 22 2016 Hour: 15:35 57.3 Lat: 34.03N Lon: 35.74E Depth: 2 Agency: REL Local
Magnitudes: 2.4MC REL Rms: 0.0 secs

KESROUAN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	208	EP		1535	59.83	-0.09	26						1.0
BHL	BN	16	208	ES		1536	1.87	0.04							1.0
ZAHL	SZ	24	144	EP		1536	1.12	-0.03							1.0
ZAHL	SN	24	144	ES		1536	4.00	0.01							1.0

HWQ	BZ	34	35	EP		1536	2.82	0.02										1.0
DQRL	SZ	39	203	EP		1536	3.68	0.05										1.0

November 24 2016 Hour: 14:24 37.2 Lat: 33.81N Lon: 35.78E Depth: 14 Agency: REL Local
Magnitudes: 2.3MC REL Rms: 0.0 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	16	313	EP		1424	40.76	0.02	24						1.0
BHL	BN	16	313	ES		1424	43.37	-0.01							1.0
DQRL	SZ	22	240	EP		1424	41.52	-0.04							1.0
DQRL	SN	22	240	ES		1424	44.83	0.03							1.0
RCY	SZ	35	171	EP		1424	43.34	0.00							1.0
HWQ	BZ	54	16	EP		1424	46.20	0.01							1.0

November 25 2016 Hour: 14:19 1.4 Agency: REL Distant
EMSC OT=14:19:01.4 39.22N 74.04E 10Km M=5.3 SOUTHERN XINJIANG, CHINA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		1430	48.91								
HWQ	BZ			EP		1430	45.72								

November 26 2016 Hour: 14:23 13.2 Agency: REL Regional
EMSC OT=14:23:13.2 35.21N 32.89E 49Km M=3.1 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		1423	53.87								
RCY	SZ			EP		1423	57.11								

November 26 2016 Hour: 14:33 47.1 Lat: 33.78N Lon: 35.75E Depth: 6 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

ALEY REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	15	56	EP		1433	49.73	0.02							1.0
ZAHL	SN	15	56	ES		1433	51.68	0.01							1.0
BHL	BZ	16	325	EP		1433	49.80	-0.11	41						1.0
DQRL	SZ	19	243	EP		1433	50.36	-0.01							1.0
DQRL	SN	19	243	ES		1433	52.87	0.06							1.0
RCY	SZ	33	167	EP		1433	52.44	-0.07							1.0
HWQ	BZ	58	18	EP		1433	56.44	0.03							1.0
HWQ	BN	58	18	ES		1434	3.36	0.03							1.0

November 26 2016 Hour: 23:42 19.3 Agency: REL Regional
EMSC OT=23:42:19.3 36.46N 35.89E 2Km M=2.8 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2342	56.50								
BHL	BZ			EP		2343	1.14								
ZAHL	SZ			EP		2343	3.71								
DQRL	SZ			EP		2343	3.63								

November 27 2016 Hour: 0:29 19.9 Lat: 33.25N Lon: 35.43E Depth: 6 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.1 secs

BENT JBEIL REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	47	54	EP		029	27.45	-0.12							1.0
RCY	SN	47	54	ES		029	33.28	0.02							1.0
DQRL	SZ	53	15	EP		029	28.34	-0.10	55						1.0
DQRL	SN	53	15	ES		029	34.83	0.06							1.0
BHL	BZ	76	16	EP		029	32.11	-0.06							1.0
ZAHL	SZ	80	32	EP		029	32.97	0.13							1.0
HWQ	BZ	124	23	EP		029	39.61	-0.00							1.0
HWQ	BE	124	23	ES		029	54.23	0.01							1.0

November 27 2016 Hour: 1:41 19.2

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		144	47.78								
ZAHL	SZ			EP		144	52.23								
BHL	BZ			EP		144	53.41								
RCY	SZ			EP		144	54.91								
DQRL	SZ			EP		144	56.06								

November 27 2016 Hour: 8:47 40.2

Agency: REL Regional

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		848	1.16								
DQRL	SZ			EP		848	5.37								
BHL	BZ			EP		848	8.42								
HWQ	BZ			EP		848	13.07								

November 27 2016 Hour: 21:35 17.9 Lat: 34.09N Lon: 36.01E Depth: 10 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

BAALBECK REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	22	344	EP		2135	21.92	-0.02							1.0
HWQ	BN	22	344	ES		2135	24.97	0.03							1.0
ZAHL	SZ	28	205	EP		2135	22.78	0.01							1.0
ZAHL	SE	28	205	ES		2135	26.36	-0.02							1.0
BHL	BZ	39	239	EP		2135	24.27	-0.14	36						1.0
BHL	BN	39	239	ES		2135	29.26	0.03							1.0
DQRL	SZ	59	224	EP		2135	27.65	0.11							1.0
RCY	SZ	67	194	EP		2135	28.92	-0.00							1.0

November 28 2016 Hour: 7:5 5.6 Lat: 33.84N Lon: 35.81E Depth: 3 Agency: REL Local
Magnitudes: 2.7MC REL Rms: 0.1 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	17	297	EP		7 5	8.26	-0.12	39						1.0
BHL	BN	17	297	ES		7 5	10.46	0.05							1.0
DQRL	SZ	27	237	EP		7 5	10.07	0.05							1.0
RCY	SZ	38	177	EP		7 5	11.78	-0.01							1.0
RCY	SN	38	177	ES		7 5	16.36	0.00							1.0
HWQ	BZ	50	14	EP		7 5	13.81	0.03							1.0

November 29 2016 Hour: 11:23 38.2 Lat: 34.61N Lon: 36.28E Depth: 7 Agency: REL Local
Magnitudes: 2.8MC REL Rms: 0.1 secs

AKKAR REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	48	219	EP		1123	46.12	0.08	43						1.0
HWQ	BN	48	219	ES		1123	51.79	-0.05							1.0
BHL	BZ	97	216	EP		1123	53.93	0.02							1.0
DQRL	SZ	120	213	EP		1123	57.13	-0.10							1.0
DQRL	SN	120	213	ES		1124	11.35	0.05							1.0
RCY	SZ	130	198	EP		1123	58.80	0.00							1.0

November 30 2016 Hour: 9:43 58.6 Lat: 33.25N Lon: 35.44E Depth: 4 Agency: REL Local
Magnitudes: 3.0MC REL Rms: 0.0 secs

MARJAAYOUN REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	46	53	EP		944	6.08	-0.00							1.0
RCY	SE	46	53	ES		944	11.64	-0.00							1.0
DQRL	SZ	52	14	EP		944	7.01	-0.02	60						1.0
DQRL	SN	52	14	ES		944	13.32	0.03							1.0
BHL	BZ	75	15	EP		944	10.75	-0.02							1.0
HWQ	BZ	124	22	EP		944	18.39	-0.01							1.0
HWQ	BN	124	22	ES		944	33.08	0.01							1.0

November 30 2016 Hour: 11:52 16.2 Lat: 33.70N Lon: 35.58E Depth: 0 Agency: REL Local
Magnitudes: 2.5MC REL Rms: 0.1 secs

CHOUF REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	2	308	EP		1152	16.43	-0.02	32						1.0
BHL	BZ	24	16	EP		1152	20.03	0.01							1.0
BHL	BN	24	16	ES		1152	22.88	0.01							1.0
RCY	SZ	32	133	EP		1152	21.29	-0.09							1.0
RCY	SN	32	133	ES		1152	25.29	0.05							1.0
HWQ	BZ	73	27	EP		1152	27.88	0.00							1.0

Epicentral Map of Lebanon

NOVEMBER 2016

