

Republic of Lebanon  
National Council for Scientific Research

# Provisional Seismological Bulletin

from the

## NATIONAL SEISMIC NETWORK

November

2017

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  $V_p/V_s$  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
BEIL	3432.50N	3611.08E	572	BEINO	Opened Jan 2017

## 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 2017 Hour: 8:46 56.6 Lat: 33.52N Lon: 35.53E Depth: 0 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.0 secs

**JEZZINE REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	15	77	EP		846	58.99	-0.05							1.0
QRWL	SN	15	77	ES		847	0.82	0.00							1.0
DQRL	SZ	21	11	EP		846	59.99	-0.06	34						1.0
DQRL	SN	21	11	ES		847	2.58	-0.00							1.0
SHBL	SZ	28	133	EP		847	1.14	0.03							1.0
RCY	SZ	29	95	EP		847	1.27	-0.03							1.0
RCY	SN	29	95	ES		847	4.75	-0.00							1.0
BHL	BZ	44	15	EP		847	3.78	-0.02							1.0
ZAHL	SZ	50	41	EP		847	4.82	0.07							1.0
HWQ	BZ	93	25	EP		847	11.67	0.07							1.0

November 1 2017 Hour: 15:27 3.1 Lat: 33.47N Lon: 35.69E Depth: 1 Agency: REL Local  
Magnitudes: 2.9MC REL Rms: 0.1 secs

**WEST BEKAA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	358	EP		1527	4.44	-0.13							1.0
SHBL	SZ	14	158	EP		1527	5.37	-0.04							1.0
SHBL	SN	14	158	ES		1527	7.18	0.04							1.0
RCY	SZ	14	77	EP		1527	5.37	-0.05	51						1.0
RCY	SN	14	77	ES		1527	7.21	0.06							1.0
DQRL	SZ	29	338	EP		1527	7.75	0.05							1.0
DQRL	SE	29	338	ES		1527	11.19	0.07							1.0
ZAHL	SZ	47	23	EP		1527	10.67	-0.02							1.0
BHL	BZ	49	356	EP		1527	11.06	0.14							0.2
HWQ	BZ	93	15	EP		1527	18.09	-0.01							0.2

November 1 2017 Hour: 20:54 9.3 Lat: 33.82N Lon: 35.05E Depth: 20 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.1 secs

**OFFSHORE CENTRAL LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	50	105	EP		2054	17.82	0.07							1.0
DQRL	SN	50	105	ES		2054	23.97	-0.04							1.0
BHL	BZ	57	80	EP		2054	18.76	0.03	34						1.0
BHL	BN	57	80	ES		2054	25.69	-0.03							1.0
ZAHL	SZ	77	87	EP		2054	21.78	0.03							1.0
RCY	SZ	81	116	EP		2054	22.40	0.09							1.0
SHBL	SZ	83	129	EP		2054	22.46	-0.10							1.0
HWQ	BZ	97	58	EP		2054	24.59	-0.03							1.0
HWQ	BE	97	58	ES		2054	36.01	0.04							1.0
BEIL	SZ	132	52	EP		2054	29.59	-0.07							1.0

November 2 2017 Hour: 2:51 42.7 Lat: 33.79N Lon: 35.78E Depth: 5 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	52	EP		251	45.10	0.01							1.0
BHL	BZ	17	320	EP		251	45.65	-0.05	38						1.0
DQRL	SZ	21	245	EP		251	46.20	-0.06							1.0
DQRL	SN	21	245	ES		251	48.94	0.05							1.0
RCY	SZ	33	170	EP		251	48.00	-0.09							1.0
RCY	SN	33	170	ES		251	52.08	0.01							1.0
SHBL	SZ	49	183	EP		251	50.72	0.09							1.0
HWQ	BZ	57	16	EP		251	52.08	0.14							1.0
BEIL	SZ	92	24	EP		251	57.48	-0.09							1.0

November 3 2017 Hour: 1:29 42.3

Agency: REL Regional

EMSC OT=01:29:42.3 35.93N 31.50E 40Km M=2.9 CYPRUS REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		130	42.46								
HWQ	BZ			EP		130	41.86								
BEIL	SZ			EP		130	43.13								
ZAHL	SZ			EP		130	44.44								
RCY	SZ			EP		130	46.31								
SHBL	SZ			EP		130	46.88								

November 3 2017 Hour: 6:3 48.8 Lat: 33.87N Lon: 35.85E Depth: 0 Agency: REL Local  
Magnitudes: 2.8MC REL Rms: 0.1 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	4	111	EP		6 3	49.39-0.09								1.0
BHL	BZ	18	282	EP		6 3	51.68-0.06	44							1.0
BHL	BN	18	282	ES		6 3	53.92 0.01								1.0
DQRL	SZ	31	234	EP		6 3	53.86-0.02								1.0
RCY	SZ	42	181	EP		6 3	55.53 0.02								1.0
RCY	SN	42	181	ES		6 4	0.52 0.05								1.0
HWQ	BZ	46	12	EP		6 3	56.29 0.03								1.0
BEIL	SZ	81	23	EP		6 4	1.90 0.06								1.0

November 3 2017 Hour: 10:31 49.3 Lat: 33.94N Lon: 36.31E Depth: 29 Agency: REL Local  
Magnitudes: 2.9MC REL Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	40	257	EP		1031	57.17 0.09								1.0
ZAHL	SN	40	257	ES		1032	2.79-0.02								1.0
HWQ	BZ	50	319	EP		1031	58.32-0.04	48							1.0
HWQ	BN	50	319	ES		1032	5.00-0.03								1.0
BHL	BZ	60	266	EP		1031	59.74 0.03								1.0
RCY	SZ	66	222	EP		1032	0.34-0.12								1.0
RCY	SN	66	222	ES		1032	8.73 0.04								1.0
BEIL	SZ	68	351	EP		1032	0.73 0.04								1.0

November 4 2017 Hour: 2:16 52.6 Lat: 33.78N Lon: 35.76E 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
ZAHL	SZ	14	52	EP		216	54.91-0.02								1.0
BHL	BZ	17	324	EP		216	55.32-0.05	26							1.0
DQRL	SZ	20	245	EP		216	55.85 0.07								1.0
DQRL	SN	20	245	ES		216	58.12-0.01								1.0
QRWL	SZ	27	196	EP		216	56.86-0.07								1.0
RCY	SZ	32	168	EP		216	57.87 0.07								1.0
RCY	SN	32	168	ES		217	1.60-0.03								1.0
HWQ	BZ	58	17	EP		217	1.96 0.02								1.0
BEIL	SZ	93	25	EP		217	7.64 0.02								1.0

November 4 2017 Hour: 9:0 19.6

Agency: REL Distant

EMSC OT=09:00:19.6 15.29S 173.32W 10Km M=6.8 TONGA

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		920	1.65								
HWQ	BZ			EP		920	2.46								
BHL	BZ			EP		920	2.30								
QRWL	SZ			EP		920	3.42								
RCY	SZ			EP		920	3.50								
SHBL	SZ			EP		920	3.42								

November 4 2017 Hour: 10:26 50.0 Lat: 34.03N Lon: 35.70E Depth: 14 Agency: REL Local  
 Magnitudes: 2.9MC 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	15	197	EP		1026	53.51	0.06							1.0
BHL	BN	15	197	ES		1026	55.94	-0.06							1.0
ZAHL	SZ	26	139	EP		1026	55.45	0.61							0.2
HWQ	BZ	35	40	EP		1026	56.17	-0.00	48						1.0
DQRL	SZ	38	199	EP		1026	56.69	0.05							1.0
RCY	SZ	61	168	EP		1026	59.97	0.00							1.0
RCY	SN	61	168	ES		1027	7.30	-0.05							1.0
BEIL	SZ	72	38	EP		1027	1.47	-0.03							1.0

November 4 2017 Hour: 12:30 7.9 Lat: 33.77N Lon: 35.78E Depth: 3 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
ZAHL	SZ	14	47	EP		1230	10.27	0.04							1.0
BHL	BZ	18	321	EP		1230	10.84	-0.14	36						1.0
DQRL	SZ	21	249	EP		1230	11.39	0.05							1.0
DQRL	SN	21	249	ES		1230	13.94	0.05							1.0
RCY	SZ	31	170	EP		1230	12.97	-0.04							1.0
RCY	SE	31	170	ES		1230	16.78	-0.02							1.0
HWQ	BZ	58	15	EP		1230	17.28	-0.00							1.0
BEIL	SZ	93	24	EP		1230	22.97	0.06							1.0

November 4 2017 Hour: 21:54 9.2 Agency: REL Regional  
 EMSC OT=21:54:09.2 36.71N 28.17E 80Km M=4.2 DODECANESE IS-TURKEY BORDER REG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2155	42.55								
DQRL	SZ			EP		2155	42.38								
HWQ	BZ			EP		2155	43.77								
BEIL	SZ			EP		2155	45.39								
QRWL	SZ			EP		2155	46.03								
ZAHL	SZ			EP		2155	45.80								
RCY	SZ			EP		2155	47.36								
SHBL	SZ			EP		2155	47.59								

November 5 2017 Hour: 1:35 27.3 Agency: REL Distant  
 EMSC OT=01:35:27.3 18.66S 177.74W 476Km M=5.4 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		154	12.21								
HWQ	BZ			EP		154	12.57								
RCY	SZ			EP		154	12.86								
QRWL	SZ			EP		154	12.92								

November 5 2017 Hour: 17:40 36.4 Lat: 33.62N Lon: 35.79E Depth: 15 Agency: REL Local  
 Magnitudes: 2.6MC REL Rms: 0.0 secs

**WEST BEKAA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	13	231	EP		1740	39.71	-0.02							1.0
RCY	SZ	14	163	EP		1740	39.95	0.01	32						1.0
RCY	SN	14	163	ES		1740	42.60	0.00							1.0
DQRL	SZ	23	295	EP		1740	40.87	0.03							1.0
DQRL	SN	23	295	ES		1740	44.18	0.02							1.0
ZAHL	SZ	28	19	EP		1740	41.56	-0.00							1.0
BHL	BZ	34	338	EP		1740	42.30	-0.09							1.0
HWQ	BZ	74	11	EP		1740	48.36	0.06							1.0

November 6 2017 Hour: 10:56 23.3 Lat: 33.54N Lon: 35.72E Depth: 0 Agency: REL Local  
Magnitudes: 2.2MC REL Rms: 0.1 secs

**RACHAYA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ	12	113	EP		1056	25.16	-0.07	20						1.0
SHBL	SZ	21	174	EP		1056	26.76	0.02							1.0
SHBL	SN	21	174	ES		1056	29.29	0.01							1.0
DQRL	SZ	23	323	EP		1056	27.10	0.06							1.0
DQRL	SN	23	323	ES		1056	29.71	-0.09							1.0
ZAHL	SZ	39	24	EP		1056	29.95	0.40							0.2
BHL	BZ	41	352	EP		1056	29.98	0.05							1.0

November 6 2017 Hour: 11:4 3.9 Lat: 34.58N Lon: 36.86E Depth: 16 Agency: REL Local  
Magnitudes: 2.8MC REL Rms: 0.3 secs

**SYRIA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	62	267	EP		11 4	14.31	0.25	46						1.0
BEIL	SN	62	267	ES		11 4	21.59	0.05							1.0
HWQ	BZ	90	249	EP		11 4	17.59	-0.63							1.0
HWQ	BN	90	249	ES		11 4	28.78	-0.01							1.0
BHL	BZ	134	237	EP		11 4	24.62	0.02							1.0
RCY	SZ	152	219	EP		11 4	27.47	0.08							1.0
DQRL	SZ	153	231	EP		11 4	27.70	0.24							1.0

November 6 2017 Hour: 13:54 14.1 Lat: 33.52N Lon: 35.70E Depth: 0 Agency: REL Local  
Magnitudes: 2.3MC REL Rms: 0.1 secs

**WEST BEKAA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	3	335	EP		1354	14.50	-0.07							1.0
RCY	SZ	13	103	EP		1354	16.23	0.01	22						1.0
RCY	SN	13	103	ES		1354	17.86	0.03							1.0
SHBL	SZ	20	167	EP		1354	17.27	-0.00							1.0
DQRL	SZ	23	330	EP		1354	17.91	0.08							1.0
DQRL	SN	23	330	ES		1354	20.67	0.05							1.0
BHL	BZ	42	355	EP		1354	20.82	-0.09							1.0

November 6 2017 Hour: 16:21 3.6 Lat: 33.78N Lon: 35.78E Depth: 0 Agency: REL Local  
Magnitudes: 2.5MC 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	46	EP		1621	5.66	-0.07							1.0
BHL	BZ	19	320	EP		1621	6.35	-0.22	29						1.0
DQRL	SZ	21	248	EP		1621	7.17	0.18							1.0
DQRL	SN	21	248	ES		1621	9.53	0.02							1.0
QRWL	SZ	27	200	EP		1621	7.81	-0.12							1.0
RCY	SZ	31	171	EP		1621	8.63	-0.02							1.0
RCY	SN	31	171	ES		1621	12.47	0.07							1.0
SHBL	SZ	48	184	EP		1621	11.20	-0.06							1.0
HWQ	BZ	58	15	EP		1621	13.20	0.30							1.0
BEIL	SZ	93	24	EP		1621	18.46	-0.08							1.0

November 6 2017 Hour: 22:2 32.6 Lat: 33.69N Lon: 35.85E Depth: 10 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.1 secs

**WEST BEKAA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	19	10	EP		22 2	36.23	0.04							1.0
RCY	SZ	21	183	EP		22 2	36.42	-0.07	34						1.0
RCY	SN	21	183	ES		22 2	39.39	0.01							1.0
DQRL	SZ	26	274	EP		22 2	37.17	0.04							1.0
DQRL	SN	26	274	ES		22 2	40.50	0.01							1.0
BHL	BZ	30	323	EP		22 2	37.64	-0.11							1.0
SHBL	SZ	39	194	EP		22 2	39.18	0.04							1.0
HWQ	BZ	66	8	EP		22 2	43.43	0.03							1.0



November 7 2017 Hour: 2:40 33.2

Agency: REL Regional

EMSC OT=02:40:33.2 36.32N 28.46E 69Km M=4.9 DODECANESE IS-TURKEY BORDER REG

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		242	1.73								
DQRL	SZ			EP		242	2.31								
HWQ	BZ			EP		242	3.91								
QRWL	SZ			EP		242	5.42								
ZAHL	SZ			EP		242	5.42								
RCY	SZ			EP		242	7.38								
SHBL	SZ			EP		242	7.79								

November 7 2017 Hour: 7:47 40.7 Lat: 33.69N Lon: 35.85E Depth: 11

Agency: REL Local

Magnitudes: 2.4MC REL

Rms: 0.1 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	19	10	EP		747	44.38	0.06							1.0
RCY	SZ	22	183	EP		747	44.63	-0.06							1.0
RCY	SN	22	183	ES		747	47.67	0.00							1.0
QRWL	SZ	22	224	EP		747	44.71	-0.02	26						1.0
DQRL	SZ	26	274	EP		747	45.36	0.08							1.0
DQRL	SN	26	274	ES		747	48.69	0.00							1.0
BHL	BZ	30	323	EP		747	45.76	-0.10							1.0
SHBL	SZ	39	194	EP		747	47.36	0.05							1.0

November 7 2017 Hour: 9:1 40.8

Agency: REL Distant

EMSC OT=09:01:40.8 17.64S 178.55W 556Km M=5.7 FIJI REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		920	15.55								
HWQ	BZ			EP		920	15.20								
BHL	BZ			EP		920	16.12								
RCY	SZ			EP		920	16.92								
QRWL	SZ			EP		920	17.83								
SHBL	SZ			EP		920	16.86								

November 7 2017 Hour: 14:29 53.0 Lat: 33.86N Lon: 36.08E Depth: 15

Agency: REL Local

Magnitudes: 2.9MC REL

Rms: 0.1 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	18	270	EP		1429	56.91	0.05							1.0
ZAHL	SN	18	270	ES		1429	59.72	-0.03							1.0
BHL	BZ	40	277	EP		1429	59.86	0.05							1.0
BHL	BN	40	277	ES		1430	4.86	-0.03							1.0
RCY	SZ	46	210	EP		1430	0.70	-0.06	52						1.0
RCY	SN	46	210	ES		1430	6.59	0.05							1.0
HWQ	BZ	48	345	EP		1430	0.97	-0.09							1.0
DQRL	SZ	50	250	EP		1430	1.28	-0.06							1.0
QRWL	SZ	51	227	EP		1430	1.35	-0.03							1.0
QRWL	SN	51	227	ES		1430	7.73	0.12							1.0
SHBL	SZ	65	209	EP		1430	3.38	-0.10							1.0
BEIL	SZ	76	7	EP		1430	5.29	0.13							1.0

November 8 2017 Hour: 10:56 5.4 Lat: 32.18N Lon: 35.60E Depth: 0

Agency: REL Regional

Magnitudes: 3.3MC REL

Rms: 0.2 secs

DEAD SEA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	130	6	EP		1056	26.16	-0.24							1.0
RCY	SZ	148	9	EP		1056	28.58	-0.47	78						1.0
RCY	SN	148	9	ES		1056	46.67	0.11							1.0
DQRL	SZ	169	359	EP		1056	32.26	0.07							1.0
BHL	BZ	191	2	EP		1056	35.41	0.13							1.0
HWQ	BZ	235	8	EP		1056	40.85	0.13							1.0
BEIL	SZ	268	12	EP		1056	44.93	0.22							1.0
BEIL	SN	268	12	ES		1057	13.86	0.05							1.0

November 8 2017 Hour: 11:53 9.8 Lat: 34.54N Lon: 36.87E Depth: 9 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
BEIL	SZ	63	270	EP		1153	19.93	-0.10	57						1.0
BEIL	SN	63	270	ES		1153	27.65	0.05							1.0
HWQ	BZ	90	251	EP		1153	24.27	-0.00							1.0
HWQ	BN	90	251	ES		1153	34.92	-0.06							1.0
BHL	BZ	132	238	EP		1153	30.72	0.19							1.0
RCY	SZ	150	220	EP		1153	33.07	-0.09							1.0
DQRL	SZ	151	233	EP		1153	33.35	0.01							1.0

November 8 2017 Hour: 14:32 6.0 Lat: 33.80N Lon: 35.78E Depth: 9 Agency: REL Local  
Magnitudes: 2.4MC REL Rms: 0.0 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	12	57	EP		1432	8.60	0.00							1.0
BHL	BZ	16	315	EP		1432	9.14	-0.01	25						1.0
BHL	BN	16	315	ES		1432	11.48	0.00							1.0
DQRL	SZ	22	242	EP		1432	9.93	0.00							1.0
RCY	SZ	34	171	EP		1432	11.78	0.02							1.0
RCY	SN	34	171	ES		1432	16.01	-0.01							1.0
HWQ	BZ	55	16	EP		1432	15.10	-0.00							1.0

November 8 2017 Hour: 15:27 52.9 Lat: 33.47N Lon: 35.69E Depth: 5 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.1 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	354	EP		1527	54.51	-0.14	34						1.0
QRWL	SN	9	354	ES		1527	55.96	0.05							1.0
RCY	SZ	14	77	EP		1527	55.40	0.02							1.0
SHBL	SZ	14	160	EP		1527	55.49	0.03							1.0
DQRL	SZ	29	337	EP		1527	57.68	0.02							1.0
DQRL	SN	29	337	ES		1528	1.18	0.03							1.0

November 8 2017 Hour: 15:39 8.7 Lat: 33.78N Lon: 35.76E Depth: 4 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	14	54	EP		1539	11.17	-0.00							1.0
ZAHL	SN	14	54	ES		1539	12.96	-0.01							1.0
BHL	BZ	17	323	EP		1539	11.51	-0.05	38						1.0
DQRL	SZ	20	244	EP		1539	12.03	0.01							1.0
DQRL	SN	20	244	ES		1539	14.51	0.06							1.0
QRWL	SZ	27	196	EP		1539	13.01	-0.17							1.0
RCY	SZ	33	168	EP		1539	14.06	0.01							1.0
RCY	SN	33	168	ES		1539	18.02	0.04							1.0
SHBL	SZ	48	182	EP		1539	16.62	0.05							1.0
HWQ	BZ	58	17	EP		1539	18.07	0.02							1.0
BEIL	SZ	93	25	EP		1539	23.77	0.05							1.0

November 8 2017 Hour: 16:0 5.2 Lat: 34.04N Lon: 35.75E Depth: 3 Agency: REL Local  
Magnitudes: 3.0MC 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	18	209	EP		16 0	8.02	-0.11	62						1.0
BHL	BN	18	209	ES		16 0	10.39	0.09							1.0
ZAHL	SZ	24	148	EP		16 0	9.09	-0.10							1.0
ZAHL	SN	24	148	ES		16 0	12.16	0.02							1.0
HWQ	BZ	32	35	EP		16 0	10.36	-0.07							1.0
HWQ	BN	32	35	ES		16 0	14.32	0.03							1.0
DQRL	SZ	41	204	EP		16 0	11.74	-0.08							1.0
RCY	SZ	61	172	EP		16 0	15.01	-0.09							1.0

BEIL SZ 69 36 EP 16 0 16.36 0.08 1.0  
 SHBL SZ 77 180 EP 16 0 17.88 0.23 1.0

**November 9 2017 Hour: 14:41 17.4 Lat: 33.47N Lon: 35.67E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.8MC REL Rms: 0.1 secs**

**WEST BEKAA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	6	EP		1441	18.81	-0.02							1.0
SHBL	SZ	15	153	EP		1441	19.76	0.00							1.0
RCY	SZ	16	78	EP		1441	19.86	-0.02	48						1.0
RCY	SN	16	78	ES		1441	21.73	-0.01							1.0
DQRL	SZ	28	340	EP		1441	21.88	-0.03							1.0
DQRL	SN	28	340	ES		1441	25.24	-0.03							1.0
ZAHL	SZ	48	24	EP		1441	25.03	-0.03							1.0
BHL	BZ	49	358	EP		1441	25.24	0.04							1.0
HWQ	BZ	94	16	EP		1441	32.52	0.08							1.0
BEIL	SZ	128	22	EP		1441	38.30	0.24							0.2

**November 9 2017 Hour: 14:49 6.2 Lat: 33.78N Lon: 35.78E Depth: 0 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		1449	8.27	-0.02							1.0
ZAHL	SN	13	48	ES		1449	9.89	0.01							1.0
BHL	BZ	18	320	EP		1449	9.04	-0.04	37						1.0
DQRL	SZ	21	247	EP		1449	9.56	0.02							1.0
DQRL	SN	21	247	ES		1449	12.06	0.01							1.0
RCY	SZ	32	170	EP		1449	11.25	-0.02							1.0
HWQ	BZ	58	16	EP		1449	15.42	-0.01							1.0
BEIL	SZ	93	24	EP		1449	21.13	0.05							1.0

**November 9 2017 Hour: 22:27 2.4 Agency: REL Regional**  
**EMSC OT=22:27:02.4 36.41N 31.74E 88Km M=3.4 WESTERN TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2228	1.42								
BEIL	SZ			EP		2228	1.46								
BHL	BZ			EP		2228	0.85								
DQRL	SZ			EP		2228	2.11								
RCY	SZ			EP		2228	7.00								
SHBL	SZ			EP		2228	7.81								

**November 10 2017 Hour: 3:37 10.0 Lat: 33.79N Lon: 35.77E Depth: 9 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	13	55	EP		337	12.75	0.01							1.0
ZAHL	SN	13	55	ES		337	14.78	-0.00							1.0
BHL	BZ	16	320	EP		337	13.17	0.03	43						1.0
DQRL	SZ	21	243	EP		337	13.73	0.00							1.0
DQRL	SN	21	243	ES		337	16.50	0.00							1.0
RCY	SZ	33	169	EP		337	15.70	0.07							1.0
RCY	SN	33	169	ES		337	19.82	0.01							1.0
SHBL	SZ	49	183	EP		337	18.00	-0.10							1.0
HWQ	BZ	57	17	EP		337	19.19	-0.07							1.0
BEIL	SZ	92	25	EP		337	24.77	0.05							1.0

**November 10 2017 Hour: 14: 7 47.3 Lat: 33.80N Lon: 35.78E Depth: 12 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.0 secs**

**ZAHLE REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	12	56	EP		14 7	50.24	-0.02							1.0
ZAHL	SN	12	56	ES		14 7	52.44	0.01							1.0
BHL	BZ	17	316	EP		14 7	50.77	0.00	33						1.0
DQRL	SZ	22	242	EP		14 7	51.47	-0.00							1.0

DQRL	SN	22	242	ES	14	7	54.54	0.00									1.0
RCY	SZ	34	171	EP	14	7	53.25	0.02									1.0
RCY	SN	34	171	ES	14	7	57.59	-0.01									1.0
HWQ	BZ	55	16	EP	14	7	56.54	0.00									1.0

**November 11 2017 Hour: 15:7 5.9 Lat: 33.47N Lon: 35.68E Depth: 1 Agency: REL Local**  
**Magnitudes: 2.7MC REL Rms: 0.0 secs**

**WEST BEKAA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	9	360	EP		15	7	7.33	-0.04						1.0
SHBL	SZ	15	157	EP		15	7	8.31	-0.03						1.0
SHBL	SN	15	157	ES		15	7	10.14	0.01						1.0
RCY	SZ	15	78	EP		15	7	8.37	0.05	39					1.0
DQRL	SZ	28	338	EP		15	7	10.54	0.06						1.0
DQRL	SN	28	338	ES		15	7	13.87	0.02						1.0
ZAHL	SZ	47	24	EP		15	7	13.49	-0.02						1.0
BHL	BZ	48	357	EP		15	7	13.68	-0.03						1.0
HWQ	BZ	93	15	EP		15	7	20.91	-0.00						1.0

**November 11 2017 Hour: 15:14 52.5 Lat: 33.79N 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	52	EP		1514		54.94	-0.08						1.0
ZAHL	SN	13	52	ES		1514		56.89	0.04						1.0
BHL	BZ	17	318	EP		1514		55.53	-0.11	40					1.0
DQRL	SZ	21	245	EP		1514		56.21	-0.03						1.0
DQRL	SN	21	245	ES		1514		59.05	0.07						1.0
RCY	SZ	33	171	EP		1514		58.01	-0.01						1.0
HWQ	BZ	57	16	EP		1515		1.87	0.12						1.0
BEIL	SZ	92	24	EP		1515		7.25	-0.12						0.2

**November 11 2017 Hour: 17:36 47.7 Lat: 34.55N Lon: 34.26E Depth: 12 Agency: REL Regional**  
**Magnitudes: 3.1MC REL Rms: 0.1 secs**

**OFFSHORE NORTH LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ	147	119	EP		1737		10.34	-0.15						1.0
BHL	BN	147	119	ES		1737		27.33	-0.03						1.0
DQRL	SZ	153	127	EP		1737		11.26	-0.09						1.0
HWQ	BZ	158	101	EP		1737		12.39	0.31	60					1.0
HWQ	BE	158	101	ES		1737		30.10	-0.03						1.0
ZAHL	SZ	169	117	EP		1737		13.71	0.17						1.0
BEIL	SZ	177	90	EP		1737		14.28	-0.21						1.0
BEIL	SN	177	90	ES		1737		34.31	-0.01						1.0
RCY	SZ	187	128	EP		1737		15.82	-0.02						1.0
RCY	SN	187	128	ES		1737		36.71	0.05						1.0

**November 12 2017 Hour: 18:18 25.2 Agency: REL Distant**  
**EMSC OT=18:18:25.2 35.54N 46.02E 50Km M=6.7 IRAN-IRAQ BORDER REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1820		13.05							
HWQ	BZ			EP		1820		15.41							
ZAHL	SZ			EP		1820		17.97							
RCY	SZ			EP		1820		18.86							
BHL	BZ			EP		1820		20.13							
SHBL	SZ			EP		1820		19.93							
QRWL	SZ			EP		1820		20.52							
DQRL	SZ			EP		1820		22.13							

November 14 2017 Hour: 13:28 37.7 Lat: 34.58N Lon: 36.86E Depth: 8 Agency: REL Local  
Magnitudes: 3.1MC REL Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	62	267	EP		1328	47.85	0.05	68						1.0
BEIL	SN	62	267	ES		1328	55.26	-0.02							1.0
HWQ	BZ	90	249	EP		1328	52.42	0.09							1.0
BHL	BZ	134	236	EP		1328	58.70	-0.02							1.0
DQRL	SZ	153	231	EP		1329	1.39	-0.19							1.0
RCY	SZ	153	219	EP		1329	1.39	-0.13							1.0
RCY	SN	153	219	ES		1329	19.18	0.04							1.0
SHBL	SZ	171	217	EP		1329	4.38	0.18							1.0

November 14 2017 Hour: 20: 2 43.7 Lat: 33.51N Lon: 35.53E Depth: 0 Agency: REL Local  
Magnitudes: 3.2MC REL Rms: 0.1 secs

JEZZINE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	14	73	EP		20 2	45.92	-0.09							1.0
QRWL	SN	14	73	ES		20 2	47.80	0.08							1.0
DQRL	SZ	22	9	EP		20 2	47.31	0.06	80						1.0
DQRL	SN	22	9	ES		20 2	49.81	-0.06							1.0
SHBL	SZ	26	133	EP		20 2	48.01	0.04							1.0
RCY	SZ	28	93	EP		20 2	48.19	-0.03							1.0
RCY	SN	28	93	ES		20 2	51.53	-0.03							1.0
BEYL	SZ	40	354	EP		20 2	50.22	0.02							0.2
BHL	BZ	45	14	EP		20 2	50.89	-0.09							1.0
BHL	BN	45	14	ES		20 2	56.39	0.03							1.0
ZAHL	SZ	50	40	EP		20 2	51.82	-0.02							1.0
HWQ	BZ	93	24	EP		20 2	58.86	0.11							1.0
BEIL	SZ	129	27	EP		20 3	4.55	0.01							1.0

November 15 2017 Hour: 0: 8 24.4 Lat: 33.79N Lon: 35.77E Depth: 11 Agency: REL Local  
Magnitudes: 2.2MC 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	55	EP		0 8	27.33	-0.02							1.0
BHL	BZ	17	318	EP		0 8	27.84	0.03	19						1.0
DQRL	SZ	21	243	EP		0 8	28.38	-0.05							1.0
DQRL	SN	21	243	ES		0 8	31.40	0.01							1.0
RCY	SZ	33	170	EP		0 8	30.24	0.02							1.0
RCY	SN	33	170	ES		0 8	34.50	-0.00							1.0

November 15 2017 Hour: 14:39 49.3 Lat: 34.71N Lon: 36.15E Depth: 0 Agency: REL Local  
Magnitudes: 2.5MC REL Rms: 0.5 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	19	169	EP		1439	52.32	-0.03	31						1.0
BEIL	SE	19	169	ES		1439	54.63	-0.01							1.0
HWQ	BZ	51	201	EP		1439	57.24	-0.31							1.0
HWQ	BN	51	201	ES		1440	3.71	0.02							1.0
BHL	BZ	100	207	EP		1440	4.54	-0.89							1.0
DQRL	SZ	124	206	EP		1440	10.26	1.08							1.0
RCY	SZ	138	192	EP		1440	11.60	0.15							1.0

November 16 2017 Hour: 0:21 1.8 Lat: 33.81N Lon: 35.82E Depth: 16 Agency: REL Local  
Magnitudes: 2.4MC REL Rms: 0.0 secs

ZAHLE REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	8	47	EP		021	4.91	-0.01							1.0
BHL	BZ	19	305	EP		021	5.86	-0.01	26						1.0
DQRL	SZ	26	244	EP		021	6.68	-0.05							1.0
DQRL	SN	26	244	ES		021	10.42	0.04							1.0
RCY	SZ	34	177	EP		021	7.95	-0.00							1.0

RCY	SN	34	177	ES		021	12.52	0.01										1.0
HWQ	BZ	54	13	EP		021	10.72	0.02										1.0

**November 16 2017 Hour: 2:10 30.3 Lat: 33.78N Lon: 35.76E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.6MC 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	14	52	EP		210	32.63	0.01							1.0
BHL	BZ	17	324	EP		210	33.03	-0.07	33						1.0
DQRL	SZ	20	246	EP		210	33.59	0.07							1.0
DQRL	SN	20	246	ES		210	35.90	0.01							1.0
QRWL	SZ	27	197	EP		210	34.60	-0.06							1.0
RCY	SZ	32	168	EP		210	35.53	0.02							1.0
RCY	SE	32	168	ES		210	39.35	0.00							1.0
SHBL	SZ	48	182	EP		210	38.05	-0.01							1.0
HWQ	BZ	58	17	EP		210	39.69	0.04							1.0

**November 16 2017 Hour: 5:7 35.5 Lat: 32.23N Lon: 35.51E Depth: 0 Agency: REL Regional**  
**Magnitudes: 3.0MC REL Rms: 0.0 secs**

**DEAD SEA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	126	10	EP		5	7	55.80	-0.01						1.0
RCY	SZ	144	12	EP		5	7	58.54	0.00	51					1.0
RCY	SN	144	12	ES		5	8	15.62	0.01						1.0
DQRL	SZ	164	2	EP		5	8	1.49	0.03						1.0
DQRL	SN	164	2	ES		5	8	20.67	-0.02						1.0
BHL	BZ	186	4	EP		5	8	4.69	0.00						1.0
HWQ	BZ	231	10	EP		5	8	10.22	-0.02						1.0

**November 16 2017 Hour: 7:36 1.6 Lat: 33.87N Lon: 35.85E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.9MC REL Rms: 0.1 secs**

**ZAHLE REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	4	117	EP		736	2.19	-0.04							1.0
BHL	BZ	18	281	EP		736	4.39	-0.12							1.0
BHL	BN	18	281	ES		736	6.67	-0.01							1.0
DQRL	SZ	32	234	EP		736	6.65	-0.04							1.0
DQRL	SN	32	234	ES		736	10.61	0.13							1.0
RCY	SZ	42	182	EP		736	8.30	-0.02	48						1.0
RCY	SN	42	182	ES		736	13.29	-0.03							1.0
HWQ	BZ	46	11	EP		736	8.99	0.04							1.0
SHBL	SZ	59	189	EP		736	11.24	0.15							1.0
SHBL	SN	59	189	ES		736	18.06	-0.09							1.0
BEIL	SZ	80	23	EP		736	14.70	0.18							0.2

**November 16 2017 Hour: 9:43 35.7 Agency: REL Distant**  
**EMSC OT=09:43:35.7 32.28N 140.53E 80Km M=5.8 IZU ISLANDS, JAPAN REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		955	52.36								
BHL	BZ			EP		955	54.21								
RCY	SZ			EP		955	55.09								
DQRL	SZ			EP		955	55.48								

**November 17 2017 Hour: 16:59 48.6 Lat: 34.02N Lon: 35.76E Depth: 2 Agency: REL Local**  
**Magnitudes: 3.0MC 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	16	218	EP		1659	51.08	-0.15	65						1.0
BHL	BN	16	218	ES		1659	53.24	0.08							1.0
ZAHL	SZ	21	147	EP		1659	52.04	-0.03							1.0
ZAHL	SN	21	147	ES		1659	54.61	-0.02							1.0
HWQ	BZ	34	31	EP		1659	53.96	-0.10							1.0
HWQ	BN	34	31	ES		1659	58.18	0.09							1.0
DQRL	SZ	39	207	EP		1659	54.90	0.01							1.0

QRWL	SZ	53	188	EP		1659	57.07	-0.05									1.0
RCY	SZ	58	173	EP		1659	57.98	-0.05									1.0
RCY	SN	58	173	ES		17	0	5.02	0.03								1.0
BEIL	SZ	70	34	EP		1659	59.96	0.03									1.0
SHBL	SZ	74	181	EP		17	0	0.76	0.15								1.0

**November 17 2017 Hour: 21:31 40.6 Lat: 33.50N Lon: 35.48E Depth: 1 Agency: REL Local**  
**Magnitudes: 2.3MC REL Rms: 0.0 secs**

**SAIDA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	25	19	EP		2131	44.65	0.05	23						1.0
DQRL	SE	25	19	ES		2131	47.56	-0.01							1.0
RCY	SZ	33	90	EP		2131	45.89	-0.03							1.0
BHL	BZ	48	19	EP		2131	48.29	-0.07							1.0
BHL	BN	48	19	ES		2131	54.09	-0.01							1.0
ZAHL	SZ	55	43	EP		2131	49.53	0.07							1.0

**November 17 2017 Hour: 22:34 19.9 Agency: REL Distant**  
**EMSC OT=22:34:19.9 29.83N 94.96E 12Km M=6.4 EASTERN XIZANG-INDIA BORDER REG**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		2243	11.51								
RCY	SZ			EP		2243	13.07								
BHL	BZ			EP		2243	13.85								
QRWL	SZ			EP		2243	14.09								
DQRL	SZ			EP		2243	14.95								

**November 18 2017 Hour: 4:12 17.8 Agency: REL Regional**  
**EMSC OT=04:12:17.8 34.50N 45.65E 27Km M=4.6 IRAN-IRAQ BORDER REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		414	8.45								
HWQ	BZ			EP		414	12.24								
RCY	SZ			EP		414	14.04								
BHL	BZ			EP		414	12.24								
SHBL	SZ			EP		414	15.56								
DQRL	SZ			EP		414	19.24								

**November 18 2017 Hour: 22:46 9.0 Lat: 33.78N Lon: 35.83E Depth: 11 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.0 secs**

**ZAHLE REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	11	31	EP		2246	11.74	0.00							1.0
ZAHL	SN	11	31	ES		2246	13.76	0.01							1.0
BHL	BZ	21	312	EP		2246	12.93	-0.11	59						1.0
BHL	BN	21	312	ES		2246	16.00	-0.01							1.0
DQRL	SZ	25	252	EP		2246	13.55	0.01							1.0
DQRL	SN	25	252	ES		2246	16.95	0.07							1.0
QRWL	SZ	29	208	EP		2246	14.06	-0.00							1.0
RCY	SZ	31	178	EP		2246	14.44	-0.01	63						1.0
RCY	SN	31	178	ES		2246	18.50	0.03							1.0
BEYL	SZ	33	289	EP		2246	14.62	0.01							1.0
SHBL	SZ	48	189	EP		2246	16.97	-0.08							1.0
HWQ	BZ	57	11	EP		2246	18.45	0.03							1.0
BEIL	SZ	91	21	EP		2246	23.57	0.04							1.0

**November 19 2017 Hour: 5:19 29.5 Lat: 35.02N Lon: 30.81E Depth: 0 Agency: REL Regional**  
**Magnitudes: 3.9MC REL Rms: 0.2 secs**

**EASTERN MEDITERRANEAN SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	461	107	EP		520	32.74	0.08							1.0
DQRL	SN	461	107	ES		521	19.20	-0.22							1.0
BHL	BZ	462	104	EP		520	32.53	-0.19							1.0
HWQ	BZ	478	98	EP		520	34.45	-0.23							1.0
ZAHL	SZ	484	104	EP		520	35.59	0.19							1.0
SHBL	SZ	491	111	EP		520	36.61	0.31							1.0



RCY	SZ	492	109	EP		520	36.48	-0.01	122								1.0
BEIL	SZ	494	95	EP		520	36.50	-0.15									1.0
BEIL	SN	494	95	ES		521	26.58	0.22									1.0

**November 19 2017 Hour: 10:44 4.7 Lat: 33.78N Lon: 35.83E Depth: 10 Agency: REL Local**  
**Magnitudes: 2.9MC REL Rms: 0.1 secs**

**ZAHLE REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	11	30	EP		1044	7.34	0.13							1.0
BHL	BZ	22	311	EP		1044	8.49	-0.11							1.0
BHL	BN	22	311	ES		1044	11.60	0.09							1.0
DQRL	SZ	25	252	EP		1044	9.10	-0.03							1.0
DQRL	SE	25	252	ES		1044	12.42	-0.01							1.0
QRWL	SZ	29	208	EP		1044	9.70	0.04							1.0
RCY	SZ	31	179	EP		1044	10.04	0.01	52						1.0
RCY	SN	31	179	ES		1044	13.91	-0.08							1.0
SHBL	SZ	48	189	EP		1044	12.69	0.02							1.0
HWQ	BZ	57	11	EP		1044	14.05	0.03							1.0
HWQ	BN	57	11	ES		1044	20.77	-0.16							1.0
BEIL	SZ	91	21	EP		1044	19.34	0.06							1.0

**November 19 2017 Hour: 22:43 30.0 Agency: REL Distant**

**EMSC OT=22:43:30.0 21.30S 168.74E 13Km M=7.0 LOYALTY ISLANDS**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		23	2	48.12							
HWQ	BZ			EP		23	2	47.32							

**November 20 2017 Hour: 7:13 53.1 Lat: 32.61N Lon: 35.15E Depth: 5 Agency: REL Regional**  
**Magnitudes: 3.3MC REL Rms: 0.1 secs**

**DEAD SEA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	99	34	EP		714	9.10	0.07							1.0
SHBL	SN	99	34	ES		714	20.80	-0.05							1.0
QRWL	SZ	115	25	EP		714	11.70	0.13							1.0
RCY	SZ	117	33	EP		714	11.83	-0.08	86						1.0
RCY	SN	117	33	ES		714	25.85	-0.00							1.0
DQRL	SZ	127	18	EP		714	13.28	-0.12							1.0
DQRL	SN	127	18	ES		714	28.40	-0.04							1.0
BHL	BZ	151	18	EP		714	16.80	-0.04							1.0
BHL	BN	151	18	ES		714	34.51	0.09							1.0
ZAHL	SZ	154	26	EP		714	17.41	0.05							1.0
HWQ	BZ	199	22	EP		714	23.41	-0.02							1.0
BEIL	SZ	235	24	EP		714	27.78	-0.00							1.0

**November 20 2017 Hour: 8:30 32.1 Lat: 33.85N Lon: 36.08E Depth: 16 Agency: REL Local**  
**Magnitudes: 2.8MC REL Rms: 0.1 secs**

**ZAHLE REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	18	273	EP		830	36.07	-0.01							1.0
BHL	BZ	39	279	EP		830	38.82	-0.10	42						1.0
BHL	BN	39	279	ES		830	44.01	0.02							1.0
RCY	SZ	45	210	EP		830	39.74	0.00							1.0
RCY	SN	45	210	ES		830	45.43	0.02							1.0
HWQ	BZ	49	346	EP		830	40.23	-0.10							1.0
HWQ	BN	49	346	ES		830	46.52	0.08							1.0
DQRL	SZ	49	251	EP		830	40.41	0.06							1.0
SHBL	SZ	63	209	EP		830	42.45	0.01							1.0
BEIL	SZ	78	7	EP		830	44.49	0.03							1.0



November 20 2017 Hour: 11:36 24.9 Lat: 33.54N Lon: 35.72E Depth: 0 Agency: REL Local  
Magnitudes: 2.6MC REL Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	3	276	EP		1136	25.42	-0.08	33						1.0
RCY	SZ	12	116	EP		1136	26.84	-0.03							1.0
SHBL	SZ	22	174	EP		1136	28.48	0.02							1.0
SHBL	SN	22	174	ES		1136	31.11	0.03							1.0
DQRL	SZ	23	322	EP		1136	28.59	0.02							1.0
DQRL	SN	23	322	ES		1136	31.31	0.04							1.0

November 20 2017 Hour: 11:43 21.7 Lat: 34.42N Lon: 36.72E Depth: 11 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
BEIL	SZ	51	286	EP		1143	30.14	-0.07	54						1.0
BEIL	SN	51	286	ES		1143	36.45	-0.03							1.0
HWQ	BZ	73	258	EP		1143	33.89	0.20							1.0
HWQ	BN	73	258	ES		1143	42.51	-0.03							1.0
BHL	BZ	114	240	EP		1143	39.87	0.20							1.0
RCY	SZ	131	219	EP		1143	42.16	-0.07							1.0
DQRL	SZ	133	234	EP		1143	42.23	-0.19							1.0

November 20 2017 Hour: 12:55 36.4 Lat: 34.53N Lon: 36.87E Depth: 13 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
BEIL	SZ	63	271	EP		1255	46.89	0.14	57						1.0
HWQ	BZ	90	252	EP		1255	50.48	-0.20							1.0
HWQ	BN	90	252	ES		1256	1.10	-0.11							1.0
BHL	BZ	132	239	EP		1255	56.93	0.03							1.0
RCY	SZ	149	220	EP		1255	59.30	-0.18							1.0
DQRL	SZ	151	233	EP		1255	59.89	0.20							1.0
DQRL	SN	151	233	ES		1256	17.00	0.12							1.0
SHBL	SZ	167	219	EP		1256	2.07	-0.00							1.0

November 20 2017 Hour: 14: 7 45.9 Lat: 33.79N Lon: 35.77E Depth: 8 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	55	EP		14 7	48.51	-0.07							1.0
ZAHL	SN	13	55	ES		14 7	50.61	0.04							1.0
BHL	BZ	17	320	EP		14 7	48.99	-0.03	37						1.0
DQRL	SZ	21	243	EP		14 7	49.69	0.09							1.0
DQRL	SN	21	243	ES		14 7	52.30	-0.03							1.0
RCY	SZ	33	169	EP		14 7	51.48	-0.01							1.0
HWQ	BZ	57	17	EP		14 7	55.21	0.03							1.0
BEIL	SZ	92	25	EP		14 8	0.70	-0.01							1.0

November 21 2017 Hour: 1:43 7.0 Lat: 33.69N Lon: 35.87E Depth: 18 Agency: REL Local  
Magnitudes: 2.5MC REL Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	19	6	EP		143	11.37	0.03							1.0
ZAHL	SN	19	6	ES		143	14.54	-0.01							1.0
RCY	SZ	21	187	EP		143	11.53	-0.02	30						1.0
DQRL	SZ	27	275	EP		143	12.32	0.03							1.0
DQRL	SN	27	275	ES		143	16.21	0.01							1.0
BHL	BZ	31	321	EP		143	12.73	-0.06							1.0
BEIL	SZ	100	17	EP		143	22.76	0.14							0.2

**November 22 2017 Hour: 10:56 14.2 Lat: 34.56N Lon: 36.79E Depth: 12 Agency: REL Local**  
**Magnitudes: 2.6MC REL Rms: 0.1 secs**

**SYRIA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	56	268	EP		1056	23.44	0.03	33						1.0
BEIL	SN	56	268	ES		1056	30.20	-0.02							1.0
HWQ	BZ	84	248	EP		1056	27.57	-0.01							1.0
HWQ	BN	84	248	ES		1056	37.50	0.02							1.0
BHL	BZ	127	236	EP		1056	33.89	-0.13							1.0
DQRL	SZ	147	230	EP		1056	37.05	0.15							1.0
RCY	SZ	147	217	EP		1056	36.92	-0.03							1.0

**November 22 2017 Hour: 11:23 47.9 Lat: 32.76N Lon: 35.71E Depth: 23 Agency: REL Regional**  
**Magnitudes: 2.8MC REL Rms: 0.1 secs**

**DEAD SEA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ	65	3	EP		1123	58.73	0.02	41						1.0
RCY	SZ	82	8	EP		1124	1.13	-0.04							1.0
RCY	SN	82	8	ES		1124	11.00	0.01							1.0
DQRL	SZ	106	353	EP		1124	4.53	0.01							1.0
DQRL	SN	106	353	ES		1124	16.81	-0.01							1.0
BHL	BZ	127	358	EP		1124	7.70	0.06							1.0
HWQ	BZ	170	7	EP		1124	12.78	-0.18							1.0
BEIL	SZ	202	12	EP		1124	17.09	0.13							1.0

**November 22 2017 Hour: 11:26 31.5 Lat: 34.43N Lon: 36.60E Depth: 13 Agency: REL Local**  
**Magnitudes: 2.9MC REL Rms: 0.1 secs**

**SYRIA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	40	288	EP		1126	38.41	0.07	48						1.0
BEIL	SE	40	288	ES		1126	43.36	-0.04							1.0
HWQ	BZ	63	254	EP		1126	41.80	0.02							1.0
BHL	BZ	105	236	EP		1126	47.93	-0.10							1.0
DQRL	SZ	125	230	EP		1126	51.01	0.10							1.0
RCY	SZ	126	214	EP		1126	50.98	-0.09							1.0
RCY	SN	126	214	ES		1127	5.59	0.04							1.0

**November 23 2017 Hour: 10:29 7.8 Lat: 34.16N Lon: 36.35E Depth: 15 Agency: REL Local**  
**Magnitudes: 2.6MC 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	39	289	EP		1029	14.59	0.00							1.0
HWQ	BN	39	289	ES		1029	19.64	0.01							1.0
BEIL	SZ	45	340	EP		1029	15.38	0.02	33						1.0
BEIL	SN	45	340	ES		1029	20.93	-0.04							1.0
ZAHL	SZ	55	232	EP		1029	17.51	0.71							0.2
BHL	BZ	70	246	EP		1029	19.08	-0.02							0.2
RCY	SZ	88	213	EP		1029	21.68	-0.01							1.0
RCY	SN	88	213	ES		1029	31.95	-0.04							1.0

**November 24 2017 Hour: 12:0 44.1**

**Agency: REL Regional**

**EMSC OT=12:00:44.1 36.01N 27.24E 3Km M=3.8 DODECANESE IS-TURKEY BORDER REG**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		12 2	33.66								
SHBL	SZ			EP		12 2	34.54								
RCY	SZ			EP		12 2	33.88								
BEIL	SZ			EP		12 2	34.17								

November 24 2017 Hour: 17:59 35.3

Agency: REL Regional

EMSC OT=17:59:35.3 36.18N 35.80E 10Km M=3.3 CENTRAL TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ			EP		18 0	7.70								
BHL	BZ			EP		18 0	12.05								
DQRL	SZ			EP		18 0	18.46								
RCY	SZ			EP		18 0	17.59								
SHBL	SZ			EP		18 0	21.71								

November 24 2017 Hour: 21:49 15.4

Agency: REL Regional

EMSC OT=21:49:15.4 37.14N 28.61E 6Km M=5.1 WESTERN TURKEY

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BHL	BZ			EP		2150	52.63								
DQRL	SZ			EP		2150	52.79								
HWQ	BZ			EP		2150	53.29								
ZAHL	SZ			EP		2150	54.69								
QRWL	SZ			EP		2150	54.61								
RCY	SZ			EP		2150	56.93								
SHBL	SZ			EP		2150	56.84								

November 25 2017 Hour: 10:34 49.4 Lat: 34.72N Lon: 36.13E Depth: 2

Agency: REL Local

Magnitudes: 2.7MC REL

Rms: 0.1 secs

SYRIA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ	21	167	EP		1034	52.90	0.09	42						1.0
BEIL	SN	21	167	ES		1034	55.26	-0.06							1.0
HWQ	BZ	52	199	EP		1034	57.82	-0.08							1.0
HWQ	BN	52	199	ES		1035	4.23	0.06							1.0
DQRL	SZ	124	205	EP		1035	9.42	-0.06							1.0
RCY	SZ	139	191	EP		1035	11.71	0.06							1.0

November 25 2017 Hour: 12:38 0.5 Lat: 33.51N Lon: 35.68E Depth: 1

Agency: REL Local

Magnitudes: 2.7MC REL

Rms: 0.0 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	5	359	EP		1238	1.30	-0.01							1.0
RCY	SZ	14	95	EP		1238	2.84	0.00	38						1.0
RCY	SN	14	95	ES		1238	4.57	-0.00							1.0
DQRL	SZ	24	335	EP		1238	4.44	-0.00							1.0
DQRL	SN	24	335	ES		1238	7.37	0.00							1.0
ZAHL	SZ	43	26	EP		1238	7.49	0.01							1.0
BHL	BZ	44	357	EP		1238	7.63	0.01							1.0
HWQ	BZ	89	16	EP		1238	14.82	-0.02							1.0

November 25 2017 Hour: 14:55 50.9 Lat: 33.79N Lon: 35.78E Depth: 3

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	53	EP		1455	53.11	0.02							1.0
BHL	BZ	17	318	EP		1455	53.71	-0.05	42						1.0
DQRL	SZ	21	244	EP		1455	54.53	0.10							1.0
DQRL	SN	21	244	ES		1455	57.01	-0.03							1.0
RCY	SZ	33	170	EP		1455	56.23	-0.06							1.0
RCY	SN	33	170	ES		1456	0.29	0.01							1.0
HWQ	BZ	56	16	EP		1456	0.03	0.00							1.0

November 26 2017 Hour: 1:16 40.8 Lat: 33.68N Lon: 35.89E Depth: 19

Agency: REL Local

Magnitudes: 2.6MC REL

Rms: 0.1 secs

WEST BEKAA REGION

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
ZAHL	SZ	19	360	EP		116	45.43	0.20							1.0
ZAHL	SN	19	360	ES		116	48.41	-0.09							1.0
RCY	SZ	21	193	EP		116	45.43	-0.03	34						1.0

DQRL	SZ	29	275	EP		116	46.34	-0.07									1.0
DQRL	SN	29	275	ES		116	50.64	0.08									1.0
BHL	BZ	33	319	EP		116	46.75	-0.08									1.0

**November 26 2017 Hour: 9:51 8.7 Lat: 34.13N Lon: 31.07E Depth: 0 Agency: REL Regional**  
**Magnitudes: 4.0MC REL Rms: 0.2 secs**

**EASTERN MEDITERRANEAN SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	419	95	EP		952	6.61	-0.20							1.0
DQRL	SN	419	95	ES		952	49.69	-0.10							1.0
BHL	BZ	424	92	EP		952	6.91	-0.55							1.0
QRWL	SZ	432	97	EP		952	8.49	0.12							1.0
SHBL	SZ	442	100	EP		952	9.86	0.22							1.0
ZAHL	SZ	446	93	EP		952	10.11	-0.01							1.0
ZAHL	SN	446	93	ES		952	55.57	0.02							1.0
RCY	SZ	447	98	EP		952	10.45	0.20	144						1.0
HWQ	BZ	450	87	EP		952	10.71	0.14							1.0
HWQ	BN	450	87	ES		952	56.42	0.09							1.0
BEIL	SZ	473	83	EP		952	13.39	0.08							1.0

**November 26 2017 Hour: 14:10 42.5 Lat: 33.74N Lon: 35.38E Depth: 0 Agency: REL Local**  
**Magnitudes: 2.7MC REL Rms: 0.1 secs**

**OFFSHORE CENTRAL LEBANON**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEYL	SZ	18	37	EP		1410	45.39	0.01							1.0
DQRL	SZ	19	103	EP		1410	45.45	-0.04	42						1.0
BHL	BZ	31	55	EP		1410	47.48	-0.07							1.0
BHL	BE	31	55	ES		1410	51.28	-0.01							1.0
ZAHL	SZ	49	75	EP		1410	50.40	0.02							1.0
ZAHL	SN	49	75	ES		1410	56.23	0.02							1.0
RCY	SZ	51	123	EP		1410	50.75	0.06							1.0
HWQ	BZ	79	41	EP		1410	55.57	0.28							0.2

**November 27 2017 Hour: 11:39 30.1 Lat: 34.55N Lon: 36.74E Depth: 18 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
BEIL	SZ	51	269	EP		1139	38.64	0.01							1.0
BEIL	SN	51	269	ES		1139	44.92	-0.04							1.0
HWQ	BZ	79	248	EP		1139	42.86	0.12	56						1.0
HWQ	BN	79	248	ES		1139	52.14	0.02							1.0
BHL	BZ	123	235	EP		1139	49.02	-0.18							1.0
DQRL	SZ	143	229	EP		1139	52.23	0.12							1.0
RCY	SZ	144	216	EP		1139	52.19	-0.05							1.0
RCY	SN	144	216	ES		1140	8.64	0.01							1.0
SHBL	SZ	162	215	EP		1139	54.62	-0.01							1.0

**November 27 2017 Hour: 21:45 48.5 Lat: 34.13N Lon: 35.75E Depth: 27 Agency: REL Local**  
**Magnitudes: 3.0MC REL Rms: 0.1 secs**

**JBEIL REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
HWQ	BZ	24	48	EP		2145	54.30	-0.01	61						1.0
HWQ	BN	24	48	ES		2145	58.62	0.05							1.0
BHL	BZ	27	199	EP		2145	54.43	-0.12							1.0
BHL	BN	27	199	ES		2145	58.99	0.00							1.0
ZAHL	SZ	33	158	EP		2145	55.27	0.02							1.0
ZAHL	SN	33	158	ES		2146	0.21	0.00							1.0
DQRL	SZ	50	199	EP		2145	57.43	0.03							1.0
DQRL	SN	50	199	ES		2146	3.94	-0.02							1.0
BEIL	SZ	61	41	EP		2145	58.64	-0.14							1.0
BEIL	SN	61	41	ES		2146	6.41	0.05							1.0
QRWL	SZ	65	186	EP		2145	59.68	0.23							1.0
RCY	SZ	71	174	EP		2146	0.22	-0.08							1.0
RCY	SN	71	174	ES		2146	8.92	-0.08							1.0

SHBL	SZ	87	180	EP		2146	2.64	0.06											1.0
SHBL	SN	87	180	ES		*2146	12.89	-0.07											0.0

**November 29 2017 Hour: 12:38 0.6** Agency: REL Regional  
**EMSC OT=12:38:00.6 37.65N 36.88E 4Km M=3.8 CENTRAL TURKEY**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
BEIL	SZ			EP		1238	50.33								
HWQ	BZ			EP		1238	55.11								
BHL	BZ			EP		1239	2.00								
DQRL	SZ			EP		1239	5.08								
RCY	SZ			EP		1239	6.69								

**November 29 2017 Hour: 14:18 22.0Lat: 33.54N Lon: 35.70E Depth: 0** Agency: REL Local  
**Magnitudes: 2.7MC REL Rms: 0.1 secs**

**RACHAYA REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ	2	292	EP		1418	22.27	-0.10							1.0
RCY	SZ	13	112	EP		1418	23.99	-0.14							1.0
RCY	SN	13	112	ES		1418	25.73	0.02							1.0
SHBL	SZ	22	170	EP		1418	25.61	0.12							1.0
DQRL	SZ	22	326	EP		1418	25.57	0.00	38						1.0
DQRL	SE	22	326	ES		1418	28.24	0.03							1.0
ZAHL	SZ	39	25	EP		1418	28.29	-0.00							1.0
BHL	BZ	41	354	EP		1418	28.54	-0.01							1.0
HWQ	BZ	85	15	EP		1418	35.76	0.08							1.0

**November 30 2017 Hour: 6:32 50.6** Agency: REL Distant  
**EMSC OT=06:32:50.6 1.06S 23.39W 10Km M=6.5 CENTRAL MID-ATLANTIC RIDGE**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
QRWL	SZ			EP		643	32.97								
RCY	SZ			EP		643	33.26								
BHL	BZ			EP		643	33.62								
HWQ	BZ			EP		643	35.80								
BEIL	SZ			EP		643	37.18								

**November 30 2017 Hour: 15:50 30.8** Agency: REL Regional  
**EMSC OT=15:50:30.8 34.35N 32.32E 20Km M=3.5 CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
RCY	SZ			EP		1551	17.31								
HWQ	BZ			EP		1551	17.72								
BEIL	SZ			EP		1551	19.95								

**November 30 2017 Hour: 15:55 52.6Lat: 34.40N Lon: 32.11E Depth: 49** Agency: REL Regional  
**Magnitudes: 4.0MC REL Rms: 0.2 secs**

**EASTERN MEDITERRANEAN SEA**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
DQRL	SZ	329	103	EP		1556	36.31	0.20	175						1.0
DQRL	SN	329	103	ES		1557	8.02	-0.31							1.0
BHL	BZ	331	99	EP		1556	36.54	0.09							1.0
HWQ	BZ	353	91	EP		1556	39.08	-0.03							1.0
HWQ	BN	353	91	ES		1557	13.82	0.27							1.0
SHBL	SZ	356	108	EP		1556	39.77	0.31							1.0
RCY	SZ	359	105	EP		1556	39.62	-0.18							1.0
RCY	SN	359	105	ES		1557	14.72	-0.03							1.0
BEIL	SZ	375	87	EP		1556	41.24	-0.40							1.0
BEIL	SN	375	87	ES		1557	18.02	0.07							1.0

**November 30 2017 Hour: 16:19 25.9** Agency: REL Regional  
**EMSC OT=16:19:25.9 34.39N 32.27E 20Km M=3.0 CYPRUS REGION**

STAT	CO	DIST	AZI	PHASE	P	HRMN	SECON	TRES	CODA	AMPL	PERI	BAZ	ARES	VELO	WT
SHBL	SZ			EP		1620	12.18								
HWQ	BZ			EP		1620	12.30								
RCY	SZ			EP		1620	12.50								
BEIL	SZ			EP		1620	15.21								

November 30 2017 Hour: 18:35 53.1 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	52	EP		1835	55.74	0.11							1.0
BHL	BZ	17	321	EP		1835	56.17	0.03	47						1.0
DQRL	SZ	21	245	EP		1835	56.75	0.13							1.0
DQRL	SN	21	245	ES		1835	59.14	-0.11							1.0
RCY	SZ	32	169	EP		1835	58.59	0.11							1.0
RCY	SN	32	169	ES		1836	2.30	-0.17							1.0
SHBL	SZ	48	183	EP		1836	1.09	0.10							1.0
HWQ	BZ	57	16	EP		1836	2.38	-0.02							1.0
BEIL	SZ	92	24	EP		1836	7.84	-0.18							1.0

# Epicentral Map of Lebanon

## NOVEMBER 2017

